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Commonwealth of Massachusetts

Department of Employment and Training

An Occupational Profile of Selected Manufacturing Industries in Massachusetts 1989

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An Occupational Profile of Selected Manufacturing Industries in Massachusetts 1989

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INTRODUCTION

This report is the twenty sixth in a series on the occupational patterns of industries in Massachusetts. The data are collected by the Occupational Employment Statistics Program, a Federal State cooperative program operated by the Department of Employment and Training in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics. This program provides information on employment by occupation for over 300 industries.

The data show how different industries employ workers in various skills. Over time, the data can be used to assess the impact of technological advances, changes in business practices, foreign competition, and changes in demand for goods and services on the occupational staffing patterns of companies.

The estimates presented in this report are based on a survey of manufacturing industries. The survey, conducted every three years, is designed by the Bureau of Labor Statistics, who also provide technical assistance and procedures for collecting the data and producing the estimates. Employers are asked to provide employment information for detailed occupations specific to their industry's activities. Employers include both full and part-time workers for the payroll period including the twelth of the referenced month. The reference months for the survey are April, May and June.

The OES suvey is based on the Standard Occupational Classification (SOC) system and the new 1987 Standard Industrial Classification (SIC) system. THe SOC is used to develop the definitions of the occupations and the SIC is used to define the industries. The 1987 SIC updates the 1972 SIC and because of changes in the SIC the employment estimates in this report may not be consistent with previously published data.

METHODOLOGY

The Sample

The second quarter 1989 report (ES-202) of employment and wages covered by the Massachusetts Employment Security Law was used as a sampling frame for the Occupational Employment Statistics survey of manufacturing establishments.

The sampling frame was stratified by three-digit SIC's (Standard Industrial Classification) and by nine employment size classes. Establishments with less than four employees were excluded from the sample and all units with employment of two hundred and fifty or more were automatically included. All other establishments were subject to sample selection on a random basis, with the units in larger size classes having a proportionately higher chance of selection. Each unit was given a weight according to the proportion of firms selected in each size class. The sample included 3,785 establishments with benchmark employment of 632,779.

The Survey and Responses

Each establishment was mailed a survey schedule; telephone calls and personal visits were made where the data was critical for calculating valid estimates. As many as three follow-up schedules were mailed to nonrespondents. Of the 3,785 establishments in the survey, replies were received from 3,312 or 87.5 percent. After manual editing and mechanical (computer) screening, 3,016 responses with total employment of 429,393 were determined useable, 79.7 percent of sample establishments.

The Estimating Procedure

All useable responses were stratified into seven size groups, by industry. Reported total employment (or the summed occupational employment) from each useable response was multiplied by the weight assigned during sample selection. These industry data were then divided into the employment in the ES-202 report for the reference month of the survey (stratified by corresponding size class cells). The result produced by the procedure is known as the benchmark factor. This factor was then applied to the occupational data, thus accounting for nonresponse. These occupational estimates were then summed across size classes to industry totals.

Sampling Error

Sampling error is an arithmetic measure of the precision of the estimate.It is the difference between the estimate computed from the sample and the result that would have been obtained if the same methods were used to collect identical information from the universe. The relative errors listed in this report are the sampling errors of each occupation expressed as a percent of that occupational estimate. The relative errors shown are such that the chances are 2 out 3 that the results of collecting identical

information from the entire population would not differ by more than the percent of relative error shown; the chances are 19 out of 20 that the results of collecting identical information from the entire population would not differ by more than twice the percent shown. For example, it is estimated in this report that there are 320 secretaries employed in SIC 20, Food and Kindred Products, making up 1.58 percent of total employment in the industry. Thus, the chances are about 68 out of 100 that the results of comparable full scale data collection would differ by less than 50 (15.7 percent) from the 320 estimated; similarly, the estimated 1.58 percent of total employment would differ by less than 0.25 percent of total employment.

Nonsampling Error

The results of this survey are subject to biases and other nonsampling errors. Although careful editing for some errors in computations and processing, as well as placing workers in a wrong occupation. The nonrespondents are a source of nonsampling error for which measure are not available but are reflected in the estimating procedure.

SCOPE OF THE SURVEY

The manufacturing industries covered in this report are defined according to the Standard Industrial Classification System (SIC) system. The SIC separates firms' economic activities into divisions (construction, manufacturing, services, etc.). Each division is further broken down into major groups (2 digit SIC) then into industry groups (3 digit SIC), and finally into industries. This report presents information at the 2 digit and 3 digit SIC level. A detailed description of the SIC system can be found in the 1987 Standard Industrial Classification Manual. A list of the 2 digit SIC codes covered by this report are listed below.

SIC CODE	SHORT TITLES
MANUFACTURING	
20	FOOD AND KINDRED PRODUCTS
22	TEXTILE MILL PRODUCTS
23	APPAREL
24	LUMBER AND WOOD PRODUCTS
25	FURNITURE AND FIXTURES
26	PAPER AND ALLIED PRODUCTS
27	PRINTING AND PUBLISHING
28	CHEMICALS
29	PETROLEUM REFINING
30	RUBBER AND PLASTIC PRODUCTS
31	LEATHER AND LEATHER PRODUCTS
32	STONE, CLAY, GLASS AND CONCRETE
33	PRIMARY METAL PRODUCTS
34	FABRICATED METAL PRODUCTS
35	INDUSTRIAL AND COMMERCIAL MACHINERY
36	ELECTRONIC AND ELECTRIC EQUIPMENT
37*	TRANSPORTATION EQUIPMENT
38*	INSTRUMENTS
39	MISCELLANEOUS MANUFACTURING

* SURVEY DATA NOT PUBLISHABLE

FOOD AND KINDRED PRODUCTS
(SIC 20)

Industry Description

Establishments in this industry manufacture or process foods and beverages for human consumption. They also produce certain related products such as manufactured ice, chewing gum, vegetable and animal fats and oils and prepared feeds for animals and fowl.

Employment Trends

Employment in the food and kindred products industry accounted for less than four percent of 1989 manufacturing employment, declining by 2,200 workers since 1986. Contributing to the decline were the ever increasing popularity of fast food outlets as well as the increased usage of labor saving equipment by food processors.

Occupational Structure

The majority of occupations in this industry (64 percent) are in the production and maintenance category, with 1,570 hand packers and packagers and 1,520 packaging and filling machine operators. It is interesting to note that while the total number of jobs involved in packaging operations displayed little change between 1986 and 1989, 3,000 and 3,090 respectively, there was a shift in the number of jobs in the two major packaging categories. Hand packager positions grew from 880 in 1986 to its present level. Conversely packaging and filling machine operators declined from the 1986 level of 2,120.

TOP TEN OCCUPATIONS

Occupation	Jobs
Hand Packers and Packagers	1,570
Packaging and Filling Machine Operators	1,520
Drivers/Salesworkers	990
All Other Helpers, Laborers, and Movers - Hand	680
Truck Drivers, Heavy	660
Sales Representatives	640
Food Batchmakers	610
Freight, Stock and Material Handlers - Hand	600
All Other Machine Operators	560
Baker, Manufacturing	540

FOOD AND KINDRED PRODUCTS
SIC - 20
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	20190	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1560	7.73	N/A
FINANCIAL MANAGERS	130	0.64	9.91
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	70	0.35	3.35
PURCHASING MANAGERS	70	0.35	8.90
MARKETING, ADVERTISING AND RELATED MANAGERS	190	0.94	12.95
ADMINISTRATIVE SERVICE MANAGERS	60	0.30	9.87
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	50	0.25	6.25
INDUSTRIAL PRODUCTION MANAGERS	260	1.29	9.23
GENERAL MANAGERS AND TOP EXECUTIVES	530	2.62	10.59
ALL OTHER MANAGERS AND ADMINISTRATORS	200	0.99	8.30
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	750	3.73	N/A
ACCOUNTANTS AND AUDITORS	110	0.54	13.51
ALL OTHER FINANCIAL SPECIALISTS	20	0.10	12.24
PURCHASING AGENTS AND BUYERS, FARM PRODUCTS	30	0.15	16.95
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	60	0.30	10.57
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	50	0.25	2.08
COST ESTIMATORS	10	0.05	13.33
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.15	6.89
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	20	0.10	0.00
MECHANICAL ENGINEERS	20	0.10	10.00
ALL OTHER ENGINEERS	**	N/A	N/A
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.10	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	40	0.20	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.05	0.00
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.05	7.14
LIFE SCIENTISTS	10	0.05	8.33
BIOLOGICAL, AGRICULTURAL AND FOOD TECHNICIANS AND TECH	130	0.64	22.21
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	30	0.15	17.24
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	50	0.25	5.15
COMPUTER PROGRAMMERS	60	0.30	5.99
COMPUTER PROGRAMMER AIDES	20	0.10	29.77
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.05	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.05	0.00
SALES AND RELATED OCCUPATIONS	1430	7.08	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	200	0.99	19.27

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FOOD AND KINDRED PRODUCTS
SIC - 20
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	40	0.20	15.10
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	640	3.17	16.29
SALESPERSONS, RETAIL TRADE	420	2.08	27.04
CASHIERS	90	0.44	31.97
ALL OTHER SALES AND RELATED WORKERS	40	0.20	34.63
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2430	12.03	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	180	0.89	18.10
ADJUSTMENT CLERKS	90	0.44	23.21
SECRETARIES	320	1.58	15.66
RECEPTIONISTS AND INFORMATION CLERKS	40	0.20	8.89
TYPISTS	50	0.25	33.82
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.10	4.00
FILE CLERKS	10	0.05	9.09
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	90	0.44	28.12
PROCUREMENT CLERKS	10	0.05	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	290	1.44	14.92
PAYROLL AND TIMEKEEPING CLERKS	60	0.30	4.91
BILLING, COST AND RATE CLERKS	80	0.40	20.49
GENERAL OFFICE CLERK	290	1.44	9.34
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	30	0.15	25.94
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	30	0.15	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	90	0.44	25.01
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	40	0.20	7.89
PRODUCTION, PLANNING, EXPEDITING CLERKS	60	0.30	26.40
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	90	0.44	13.81
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	130	0.64	31.96
TRAFFIC, SHIPPING AND RECEIVING CLERKS	410	2.03	13.74
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	0.10	26.65
SERVICE OCCUPATIONS	1000	4.96	N/A
FIRST LINE SUPERVISORS - SERVICE	210	1.04	14.21
GUARDS AND WATCH GUARDS	40	0.20	16.66
FOOD AND BEVERAGE PREPARATION AND SERVICE WORKERS	290	1.44	33.25
JANITORS AND CLEANERS	410	2.03	8.30
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	50	0.25	9.29
ALL OTHER SERVICE WORKERS	**	N/A	N/A
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	130	0.65	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FOOD AND KINDRED PRODUCTS
SIC - 20
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
GRADERS AND SORTERS, AGRICULTURAL PRODUCTS	80	0.40	34.61
ALL OTHER AGRICULTURAL, FORESTRY AND RELATED WORKERS	50	0.25	46.86
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	12890	63.82	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	100	0.49	7.71
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	410	2.03	12.67
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	70	0.35	15.80
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	90	0.44	25.72
ALL OTHER PRODUCTION WORKER SUPERVISORS	100	0.49	28.70
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.10	27.35
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	270	1.34	12.14
MACHINERY MAINTENANCE MECHANICS	410	2.03	12.15
MACHINERY MAINTENANCE WORKERS	80	0.40	8.79
MAINTENANCE REPAIRERS, GENERAL UTILITY	180	0.89	19.02
AUTOMOTIVE MECHANICS	40	0.20	15.08
BUS AND TRUCK MECHANICS AND DIESEL MECHANICS	60	0.30	26.95
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	50	0.25	0.00
COIN AND VENDING MACHINE SERVICERS	20	0.10	44.89
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.05	9.43
CARPENTERS	30	0.15	11.63
ELECTRICIANS	30	0.15	6.45
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.05	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.05	12.50
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
SHEET METAL WORKERS	10	0.05	43.30
SLAUGHTERERS AND BUTCHERS	140	0.69	15.58
BAKERS, MANUFACTURING	540	2.67	9.29
FOOD BATCHMAKERS	610	3.02	16.62
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	40	0.20	35.26
ALL OTHER PRECISION WORKERS	40	0.20	53.14
COOKING MACHINE OPERATORS AND TENDERS, FOOD AND TOBACCO	220	1.09	32.96
ROASTING, BAKING AND DRYING MACHINE OPERATORS AND TENDE	100	0.49	19.33
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.05	12.50
DAIRY PROCESSING EQUIPMENT OPERATORS, INCLUDING SETTERS	90	0.44	21.87
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	40	0.20	0.00
CUTTING AND SLICING MACHINE OPERATORS	140	0.69	17.69
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	70	0.35	28.56
SEPARATING, FILTERING, CLARIFYING, PRECIPITATING AND ST	20	0.10	27.42
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATO	180	0.89	33.40
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE SET	20	0.10	29.39
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	70	0.35	28.17

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FOOD AND KINDRED PRODUCTS
SIC - 20
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PACKAGING AND FILLING MACHINE OPERATORS	1520	7.53	13.72
ALL OTHER MACHINE SETTERS	40	0.20	24.18
ALL OTHER MACHINE OPERATORS	560	2.77	22.52
CANNERY WORKERS	280	1.39	20.96
MEAT, POULTRY AND FISH CUTTERS AND TRIMMERS - HAND	340	1.68	18.02
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	250	1.24	13.42
ALL OTHER HAND WORKERS	100	0.49	50.90
STATIONARY ENGINEERS	30	0.15	17.64
ALL OTHER PLANT AND SYSTEM OPERATORS	**	N/A	N/A
TRUCK DRIVERS, HEAVY	660	3.27	18.35
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	260	1.29	23.65
DRIVER/SALES WORKERS	990	4.90	17.30
ALL OTHER TRANSPORTATION WORKERS	10	0.05	65.46
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	350	1.73	16.69
PUMP OPERATORS	10	0.05	15.71
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	30	0.15	41.90
MECHANIC AND REPAIRER HELPERS	30	0.15	14.00
MACHINE FEEDERS AND OFFBEARERS	130	0.64	47.90
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	600	2.97	11.34
HAND PACKERS AND PACKAGERS	1570	7.77	13.25
VEHICLE WASHERS AND EQUIPMENT CLEANERS	120	0.59	16.22
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	680	3.37	11.12

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEAT PRODUCTS
SIC - 201
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR%
ALL OCCUPATIONS	1880	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	150	7.98	N/A
FINANCIAL MANAGERS	20	1.07	5.88
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.53	0.00
PURCHASING MANAGERS	10	0.53	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.53	7.69
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.53	0.00
INDUSTRIAL PRODUCTION MANAGERS	30	1.60	8.60
GENERAL MANAGERS AND TOP EXECUTIVES	50	2.66	4.56
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.53	44.72
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	30	1.59	N/A
ACCOUNTANTS AND AUDITORS	10	0.53	9.99
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.53	0.00
BIOLOGICAL, AGRICULTURAL AND FOOD TECHNICIANS AND TECH	10	0.53	19.99
SALES AND RELATED OCCUPATIONS	140	7.44	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.53	9.09
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	120	6.38	6.56
SALESPERSONS, RETAIL TRADE	10	0.53	11.11
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	270	14.38	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	30	1.60	12.28
ADJUSTMENT CLERKS	10	0.53	19.99
SECRETARIES	20	1.07	19.69
RECEPTIONISTS AND INFORMATION CLERKS	10	0.53	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.53	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	40	2.13	8.33
BILLING, COST AND RATE CLERKS	10	0.53	0.00
GENERAL OFFICE CLERK	20	1.07	5.88
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.53	0.00
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	20	1.07	32.75
TRAFFIC, SHIPPING AND RECEIVING CLERKS	90	4.79	14.21

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEAT PRODUCTS
SIC - 201
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR%
SERVICE OCCUPATIONS	30	1.60	N/A
FIRST LINE SUPERVISORS - SERVICE	20	1.07	13.63
JANITORS AND CLEANERS	10	0.53	9.09
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	50	2.66	N/A
ALL OTHER AGRICULTURAL, FORESTRY AND RELATED WORKERS	50	2.66	46.86
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1210	64.35	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	30	1.60	18.55
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.53	0.00
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	30	1.60	12.50
MACHINERY MAINTENANCE MECHANICS	20	1.06	13.22
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.53	0.00
SLAUGHTERERS AND BUTCHERS	140	7.45	15.58
FOOD BATCHMAKERS	20	1.06	17.63
COOKING MACHINE OPERATORS AND TENDERS, FOOD AND TOBACCO	20	1.06	22.59
CUTTING AND SLICING MACHINE OPERATORS	10	0.53	20.20
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	10	0.53	15.71
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATA	50	2.66	17.63
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	20	1.06	23.38
PACKAGING AND FILLING MACHINE OPERATORS	120	6.38	10.78
ALL OTHER MACHINE OPERATORS	**	N/A	N/A
CANNERY WORKERS	90	4.79	27.28
MEAT, POULTRY AND FISH CUTTERS AND TRIMMERS - HAND	160	8.51	20.42
ALL OTHER HAND WORKERS	40	2.13	49.19
TRUCK DRIVERS, HEAVY	100	5.32	13.77
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	50	2.66	10.63
DRIVER/SALES WORKERS	20	1.06	30.23
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	1.60	10.47
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	30	1.60	24.86
HAND PACKERS AND PACKAGERS	120	6.38	13.00
VEHICLE WASHERS AND EQUIPMENT CLEANERS	10	0.53	24.74
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	70	3.72	24.50

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

DAIRY PRODUCTS
SIC - 202
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3920	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	360	9.16	N/A
FINANCIAL MANAGERS	20	0.51	15.49
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.51	8.83
PURCHASING MANAGERS	10	0.25	17.67
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.76	24.74
ADMINISTRATIVE SERVICE MANAGERS	10	0.25	12.49
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.25	7.14
INDUSTRIAL PRODUCTION MANAGERS	40	1.02	5.97
GENERAL MANAGERS AND TOP EXECUTIVES	100	2.55	13.89
ALL OTHER MANAGERS AND ADMINISTRATORS	120	3.06	6.07
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	220	5.60	N/A
ACCOUNTANTS AND AUDITORS	20	0.51	4.34
ALL OTHER FINANCIAL SPECIALISTS	20	0.51	14.40
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.25	0.00
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	40	1.02	0.00
MECHANICAL ENGINEERS	10	0.25	0.00
ALL OTHER ENGINEERS	**	N/A	N/A
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.25	0.00
BIOLOGICAL, AGRICULTURAL AND FOOD TECHNICIANS AND TECH	70	1.79	18.58
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.51	10.82
COMPUTER PROGRAMMERS	20	0.51	8.31
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	**	N/A	N/A
SALES AND RELATED OCCUPATIONS	320	8.16	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	40	1.02	18.66
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	190	4.85	24.87
SALESPERSONS, RETAIL TRADE	80	2.04	33.18
ALL OTHER SALES AND RELATED WORKERS	10	0.25	28.74
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	600	15.27	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	0.51	18.70
ADJUSTMENT CLERKS	60	1.53	28.38
SECRETARIES	120	3.06	13.71
RECEPTIONISTS AND INFORMATION CLERKS	10	0.25	28.57

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

DAIRY PRODUCTS
SIC - 202
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
TYPISTS	20	0.51	49.21
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.25	8.33
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	40	1.02	35.01
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	50	1.28	10.95
PAYROLL AND TIMEKEEPING CLERKS	20	0.51	4.34
BILLING, COST AND RATE CLERKS	40	1.02	28.93
GENERAL OFFICE CLERK	30	0.77	23.71
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	10	0.25	38.29
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.25	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.51	17.81
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	10	0.25	8.33
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.76	25.51
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	20	0.51	29.41
TRAFFIC, SHIPPING AND RECEIVING CLERKS	60	1.53	26.33
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	10	0.25	42.86
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.25	0.00
SERVICE OCCUPATIONS	140	3.58	N/A
FIRST LINE SUPERVISORS - SERVICE	70	1.79	28.97
JANITORS AND CLEANERS	20	0.51	19.24
ALL OTHER SERVICE WORKERS	50	1.28	66.30
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2280	58.23	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	30	0.76	10.54
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	60	1.53	8.69
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	50	1.28	19.46
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.51	43.87
ALL OTHER PRODUCTION WORKER SUPERVISORS	70	1.79	32.03
MACHINERY MAINTENANCE MECHANICS	50	1.28	28.06
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.53	18.73
BUS AND TRUCK MECHANICS AND DIESEL MECHANICS	30	0.77	36.85
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.26	45.11
CARPENTERS	20	0.51	18.02
ELECTRICIANS	10	0.26	0.00
FOOD BATCHMAKERS	30	0.77	46.59
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	10	0.26	48.98
DAIRY PROCESSING EQUIPMENT OPERATORS, INCLUDING SETTERS	90	2.30	21.01
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	30	0.77	33.66

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

DAIRY PRODUCTS
SIC - 202
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE SET	10	0.26	37.79
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	20	0.51	49.49
PACKAGING AND FILLING MACHINE OPERATORS	230	5.87	13.20
ALL OTHER MACHINE OPERATORS	170	4.34	53.19
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	10	0.26	0.00
STATIONARY ENGINEERS	10	0.26	42.85
TRUCK DRIVERS, HEAVY	190	4.85	21.36
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	40	1.02	43.79
DRIVER/SALES WORKERS	380	9.69	18.83
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	90	2.30	18.67
MACHINE FEEDERS AND OFFBEARERS	20	0.51	33.70
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	370	9.44	10.11
HAND PACKERS AND PACKAGERS	120	3.06	32.11
VEHICLE WASHERS AND EQUIPMENT CLEANERS	30	0.77	37.28
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	20	0.51	60.85

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BAKERY PRODUCTS
SIC - 205
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	4010	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	270	6.73	N/A
FINANCIAL MANAGERS	20	0.50	7.87
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.25	0.00
PURCHASING MANAGERS	10	0.25	21.65
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.75	7.69
ADMINISTRATIVE SERVICE MANAGERS	10	0.25	21.75
INDUSTRIAL PRODUCTION MANAGERS	70	1.74	7.82
GENERAL MANAGERS AND TOP EXECUTIVES	90	2.24	10.42
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.75	0.00
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	20	0.50	N/A
ACCOUNTANTS AND AUDITORS	10	0.25	28.28
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.25	42.85
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
SALES AND RELATED OCCUPATIONS	480	11.96	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	70	1.74	16.85
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	40	1.00	4.22
SALESPERSONS, RETAIL TRADE	270	6.73	19.44
CASHIERS	80	1.99	32.04
ALL OTHER SALES AND RELATED WORKERS	20	0.50	44.41
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	330	8.24	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	40	1.00	23.61
ADJUSTMENT CLERKS	10	0.25	15.74
SECRETARIES	10	0.25	24.74
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.25	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.25	37.50
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	40	1.00	18.41
PAYROLL AND TIMEKEEPING CLERKS	10	0.25	0.00
BILLING, COST AND RATE CLERKS	10	0.25	12.49
GENERAL OFFICE CLERK	40	1.00	11.76
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.75	21.72
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.25	33.16
TRAFFIC, SHIPPING AND RECEIVING CLERKS	110	2.74	5.52

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BAKERY PRODUCTS
SIC - 205
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	360	8.98	N/A
FIRST LINE SUPERVISORS - SERVICE	30	0.75	18.18
FOOD AND BEVERAGE PREPARATION AND SERVICE WORKERS	170	4.24	25.73
JANITORS AND CLEANERS	120	2.99	9.04
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	40	1.00	8.05
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2550	63.59	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.50	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	60	1.49	16.55
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.25	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.25	16.66
MACHINERY MAINTENANCE MECHANICS	110	2.74	4.06
MACHINERY MAINTENANCE WORKERS	20	0.50	5.88
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.75	14.28
AUTOMOTIVE MECHANICS	20	0.50	12.42
BUS AND TRUCK MECHANICS AND DIESEL MECHANICS	20	0.50	12.42
ELECTRICIANS	10	0.25	19.99
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.25	0.00
BAKERS, MANUFACTURING	530	13.21	7.63
FOOD BATCHMAKERS	280	6.98	13.96
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	20	0.50	38.39
ROASTING, BAKING AND DRYING MACHINE OPERATORS AND TENDE	50	1.25	22.35
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	40	1.00	0.00
CUTTING AND SLICING MACHINE OPERATORS	60	1.49	0.00
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATO	20	0.50	23.93
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	10	0.25	24.74
PACKAGING AND FILLING MACHINE OPERATORS	170	4.24	16.23
ALL OTHER MACHINE SETTERS	10	0.25	36.05
ALL OTHER MACHINE OPERATORS	70	1.74	26.58
ALL OTHER HAND WORKERS	20	0.50	40.00
TRUCK DRIVERS, HEAVY	140	3.49	10.04
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	50	1.25	27.85
DRIVER/SALES WORKERS	360	8.98	12.18
MECHANIC AND REPAIRER HELPERS	10	0.25	37.79
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	40	1.00	3.28
HAND PACKERS AND PACKAGERS	180	4.49	17.40
VEHICLE WASHERS AND EQUIPMENT CLEANERS	20	0.50	37.11
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	150	3.74	25.64

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SUGAR AND CONFECTIONERY PRODUCTS
SIC - 206
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1730	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	70	4.04	N/A
FINANCIAL MANAGERS	10	0.58	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.58	22.22
INDUSTRIAL PRODUCTION MANAGERS	20	1.15	10.10
GENERAL MANAGERS AND TOP EXECUTIVES	30	1.73	11.73
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	10	0.58	N/A
ACCOUNTANTS AND AUDITORS	10	0.58	14.28
SALES AND RELATED OCCUPATIONS	100	5.77	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.58	0.00
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	1.15	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	50	2.89	17.90
ALL OTHER SALES AND RELATED WORKERS	20	1.15	56.92
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	160	9.24	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	30	1.73	13.81
SECRETARIES	20	1.15	19.50
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.58	19.99
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.16	11.11
GENERAL OFFICE CLERK	10	0.58	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.58	44.09
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	30	1.73	36.28
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	1.73	6.45
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	30	1.73	N/A
JANITORS AND CLEANERS	30	1.73	4.56
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1360	78.64	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	20	1.16	4.99

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SUGAR AND CONFECTIONERY PRODUCTS
SIC - 206
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.58	27.73
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	10	0.58	8.33
MACHINERY MAINTENANCE MECHANICS	30	1.73	11.05
MACHINERY MAINTENANCE WORKERS	10	0.58	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.58	11.11
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	10	0.58	0.00
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.58	0.00
CARPENTERS	10	0.58	0.00
FOOD BATCHMAKERS	170	9.83	5.87
ALL OTHER PRECISION FOOD AND TOBACCO WORKERS	10	0.58	23.57
COOKING MACHINE OPERATORS AND TENDERS, FOOD AND TOBACCO	20	1.16	21.21
ROASTING, BAKING AND DRYING MACHINE OPERATORS AND TENDE	10	0.58	0.00
CUTTING AND SLICING MACHINE OPERATORS	10	0.58	35.35
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATO	10	0.58	30.61
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	30	1.73	21.65
PACKAGING AND FILLING MACHINE OPERATORS	210	12.14	9.67
ALL OTHER MACHINE OPERATORS	230	13.29	3.64
CANNERY WORKERS	10	0.58	31.71
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	200	11.56	5.72
ALL OTHER HAND WORKERS	10	0.58	61.23
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.58	27.95
MECHANIC AND REPAIRER HELPERS	10	0.58	11.78
MACHINE FEEDERS AND OFFBEARERS	20	1.16	25.81
HAND PACKERS AND PACKAGERS	140	8.09	11.08
VEHICLE WASHERS AND EQUIPMENT CLEANERS	60	3.47	0.00
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	80	4.62	2.40

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BEVERAGES
SIC - 208
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1670	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	120	7.19	N/A
FINANCIAL MANAGERS	10	0.60	27.95
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.60	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	20	1.20	38.88
INDUSTRIAL PRODUCTION MANAGERS	20	1.20	12.42
GENERAL MANAGERS AND TOP EXECUTIVES	50	2.99	9.25
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.60	39.99
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	30	1.80	N/A
ACCOUNTANTS AND AUDITORS	20	1.20	5.88
COMPUTER PROGRAMMER AIDES	10	0.60	48.43
SALES AND RELATED OCCUPATIONS	150	8.99	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	20	1.20	35.35
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	100	5.99	17.10
SALESPERSONS, RETAIL TRADE	20	1.20	22.11
ALL OTHER SALES AND RELATED WORKERS	10	0.60	40.82
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	260	15.57	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.60	27.21
SECRETARIES	30	1.79	12.43
RECEPTIONISTS AND INFORMATION CLERKS	10	0.60	16.66
TYPISTS	10	0.60	35.13
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.60	19.24
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.20	31.42
BILLING, COST AND RATE CLERKS	10	0.60	39.99
GENERAL OFFICE CLERK	60	3.59	4.81
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.60	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	1.20	33.33
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	40	2.39	45.30
TRAFFIC, SHIPPING AND RECEIVING CLERKS	10	0.60	31.18
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	1.20	64.90
SERVICE OCCUPATIONS	10	0.60	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BEVERAGES
SIC - 208
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
JANITORS AND CLEANERS	10	0.60	21.65
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1100	65.85	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.60	39.99
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	70	4.19	12.90
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	2.39	25.76
MACHINERY MAINTENANCE MECHANICS	20	1.20	31.49
MACHINERY MAINTENANCE WORKERS	40	2.39	2.70
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	40	2.39	0.00
COIN AND VENDING MACHINE SERVICERS	30	1.79	44.89
ALL OTHER PRECISION WORKERS	30	1.80	54.86
PACKAGING AND FILLING MACHINE OPERATORS	300	17.96	16.13
ALL OTHER MACHINE SETTERS	10	0.60	42.49
ALL OTHER MACHINE OPERATORS	50	2.99	53.60
TRUCK DRIVERS, HEAVY	80	4.79	33.56
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	50	2.99	6.92
DRIVER/SALES WORKERS	70	4.19	48.66
ALL OTHER TRANSPORTATION WORKERS	10	0.60	65.46
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	90	5.39	14.59
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.60	65.85
MACHINE FEEDERS AND OFFBEARERS	10	0.60	35.20
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	30	1.80	34.13
HAND PACKERS AND PACKAGERS	100	5.99	4.57
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.60	65.08

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FOOD AND KINDRED PRODUCTS
SIC - 209
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	4190	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	310	7.39	N/A
FINANCIAL MANAGERS	30	0.71	3.57
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.24	0.00
PURCHASING MANAGERS	10	0.24	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	60	1.43	1.75
ADMINISTRATIVE SERVICE MANAGERS	10	0.24	14.28
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.24	0.00
INDUSTRIAL PRODUCTION MANAGERS	50	1.19	9.44
GENERAL MANAGERS AND TOP EXECUTIVES	110	2.62	6.25
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.48	13.22
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	200	4.78	N/A
ACCOUNTANTS AND AUDITORS	30	0.71	18.24
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS AND BUYERS, FARM PRODUCTS	10	0.24	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.48	21.51
COST ESTIMATORS	10	0.24	16.66
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.48	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.24	0.00
MECHANICAL ENGINEERS	10	0.24	19.99
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.24	0.00
BIOLOGICAL, AGRICULTURAL AND FOOD TECHNICIANS AND TECH	30	0.71	34.74
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	20	0.48	5.88
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.24	0.00
COMPUTER PROGRAMMERS	10	0.24	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.24	0.00
SALES AND RELATED OCCUPATIONS	150	3.58	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	20	0.48	34.23
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	0.48	17.64
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	110	2.62	14.10
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	440	10.50	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	30	0.71	8.57

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FOOD AND KINDRED PRODUCTS
SIC - 209
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ADJUSTMENT CLERKS	10	0.24	0.00
SECRETARIES	50	1.19	10.19
RECEPTIONISTS AND INFORMATION CLERKS	10	0.24	8.33
TYPISTS	10	0.24	41.23
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	**	N/A	N/A
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.24	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	60	1.43	9.27
PAYROLL AND TIMEKEEPING CLERKS	10	0.24	0.00
BILLING, COST AND RATE CLERKS	10	0.24	0.00
GENERAL OFFICE CLERK	80	1.91	12.02
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.24	0.00
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	10	0.24	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.24	0.00
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	20	0.48	14.28
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	40	0.95	9.21
TRAFFIC, SHIPPING AND RECEIVING CLERKS	70	1.67	7.71
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	250	5.97	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.24	7.69
GUARDS AND WATCH GUARDS	20	0.48	16.66
FOOD AND BEVERAGE PREPARATION AND SERVICE WORKERS	60	1.43	5.72
JANITORS AND CLEANERS	160	3.82	6.57
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	80	1.91	N/A
GRADERS AND SORTERS, AGRICULTURAL PRODUCTS	80	1.91	34.13
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2760	65.87	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.24	15.97
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	100	2.39	9.12
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.48	29.39
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	60	1.43	25.86
MACHINERY MAINTENANCE MECHANICS	100	2.39	7.79
MACHINERY MAINTENANCE WORKERS	20	0.48	35.90
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.95	20.04

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FOOD AND KINDRED PRODUCTS
SIC - 209
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
BUS AND TRUCK MECHANICS AND DIESEL MECHANICS	10	0.24	37.26
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
ELECTRICIANS	10	0.24	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
MACHINISTS	10	0.24	19.99
SHEET METAL WORKERS	10	0.24	43.30
FOOD BATCHMAKERS	20	0.48	33.79
ALL OTHER PRECISION WORKERS	40	0.95	62.80
COOKING MACHINE OPERATORS AND TENDERS, FOOD AND TOBACCO	120	2.86	37.08
ROASTING, BAKING AND DRYING MACHINE OPERATORS AND TENDE	30	0.72	21.65
CUTTING AND SLICING MACHINE OPERATORS	40	0.95	22.15
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	20	0.48	13.46
SEPARATING, FILTERING, CLARIFYING, PRECIPITATING AND ST	10	0.24	0.00
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATO	50	1.19	22.34
PACKAGING AND FILLING MACHINE OPERATORS	260	6.20	14.66
ALL OTHER MACHINE OPERATORS	30	0.72	27.71
CANNERY WORKERS	50	1.19	32.19
MEAT, POULTRY AND FISH CUTTERS AND TRIMMERS - HAND	180	4.30	15.95
ALL OTHER HAND WORKERS	70	1.67	55.01
STATIONARY ENGINEERS	10	0.24	0.00
ALL OTHER PLANT AND SYSTEM OPERATORS	**	N/A	N/A
TRUCK DRIVERS, HEAVY	50	1.19	14.43
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	50	1.19	17.43
DRIVER/SALES WORKERS	100	2.39	8.83
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	1.19	17.41
PUMP OPERATORS	10	0.24	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.24	0.00
MECHANIC AND REPAIRER HELPERS	10	0.24	0.00
MACHINE FEEDERS AND OFFBEARERS	20	0.48	24.65
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	60	1.43	11.61
HAND PACKERS AND PACKAGERS	800	19.09	5.81
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	280	6.68	5.15

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TEXTILE MILL PRODUCTS
(SIC 22)

Industry Description

Establishments in this industry engage in performing any of the following operations: (1) preparation of fiber and subsequent manufacturing of yarn, thread, braids, twine, and cordage; (2) manufacturing broadwoven fabrics, narrow woven fabrics, knit fabrics, and carpets and rugs from yarn; (3) dyeing and finishing fiber, yarn, fabrics, and knit apparel; (4) coating, waterproofing, or otherwise treating fabrics; (5) the integrated manufacture of knit apparel and other finished articles from yarn; and (6) the manufacture of felt goods, lace goods, nonwoven fabrics, and miscellaneous textiles.

Employment Trends

The 1989 employment level in textile mills is 12.4 percent lower than the 1986 employment level of 17,700 jobs. This is greater than the 7.9 percent drop recorded for nondurable goods as a whole and continues a declining employment trend for the textile industry in Massachusetts.

Occupational Structure

Analysis of the industry by major occupational category shows production and maintenance occupations,with 11,600 jobs, continuing to dominate the industry with 74 percent of total employment. Nine of the top ten ranked occupations are in this major category with general managers and top executives in the tenth spot. Two of the top three ranked occupations are textile machine operators and tenders with 2,990 people representing nearly 20 percent of all textile industry employment.

TOP TEN OCCUPATIONS

Occupation	Jobs
Textile Machine Operators And Tenders-Winding, Twisting	2,210
Textile Machine Setters and Set-up Operators	880
Textile Bleaching and Dyeing Machine Operators and Tenders	780
All Other Helpers, Laborers, Movers-Hand	710
Production Inspectors, Testers, Graders, Sorters, Samplers	550
First Line Supervisors- Production and Related	520
All Other Machine Operators	450
Machine Maintenance Machine, Textile Machines	340
Freight, Stock and Material Handlers, Hand	340
General Managers and Top Executives	300

TEXTILE MILL PRODUCTS
SIC - 22
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	15650	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	960	6.14	N/A
FINANCIAL MANAGERS	60	0.38	5.02
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	40	0.26	4.44
PURCHASING MANAGERS	30	0.19	8.16
MARKETING, ADVERTISING AND RELATED MANAGERS	70	0.45	8.07
ADMINISTRATIVE SERVICE MANAGERS	30	0.19	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	40	0.26	8.79
INDUSTRIAL PRODUCTION MANAGERS	190	1.21	9.99
GENERAL MANAGERS AND TOP EXECUTIVES	300	1.92	14.82
ALL OTHER MANAGERS AND ADMINISTRATORS	200	1.28	44.33
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	900	5.75	N/A
ACCOUNTANTS AND AUDITORS	90	0.58	11.90
ALL OTHER FINANCIAL SPECIALISTS	30	0.19	26.01
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	50	0.32	19.17
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	30	0.19	9.12
COST ESTIMATORS	20	0.13	8.33
ALL OTHER MANAGEMENT SUPPORT WORKERS	120	0.77	15.34
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	40	0.26	11.11
MECHANICAL ENGINEERS	20	0.13	16.66
ALL OTHER ENGINEERS	40	0.26	25.42
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.06	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.06	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	100	0.64	17.94
CHEMISTS, EXCEPT BIOCHEMISTS	30	0.19	4.16
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	90	0.58	14.42
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	10	0.06	42.86
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.13	7.53
COMPUTER PROGRAMMERS	30	0.19	17.68
COMPUTER PROGRAMMER AIDES	10	0.06	15.71
ALL OTHER COMPUTER SCIENTISTS	10	0.06	35.36
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.06	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	70	0.45	14.78
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	60	0.38	51.91
SALES AND RELATED OCCUPATIONS	350	2.23	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TEXTILE MILL PRODUCTS
SIC - 22
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	60	0.38	33.35
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	0.13	19.24
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	240	1.53	27.42
SALESPERSONS, RETAIL TRADE	10	0.06	0.00
ALL OTHER SALES AND RELATED WORKERS	20	0.13	39.60
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1620	10.36	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	50	0.32	5.63
ADJUSTMENT CLERKS	60	0.38	8.90
SECRETARIES	240	1.53	14.03
RECEPTIONISTS AND INFORMATION CLERKS	20	0.13	11.11
TYPISTS	20	0.13	17.48
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.06	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.13	7.22
FILE CLERKS	10	0.06	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	40	0.26	23.51
PROCUREMENT CLERKS	20	0.13	8.32
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	190	1.21	19.76
PAYROLL AND TIMEKEEPING CLERKS	40	0.26	5.59
BILLING, COST AND RATE CLERKS	50	0.32	10.00
GENERAL OFFICE CLERK	210	1.34	16.69
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	20	0.13	27.78
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	50	0.32	8.33
DATA ENTRY KEYERS, EXCEPT COMPOSING	50	0.32	4.64
SWITCHBOARD OPERATOR	40	0.26	8.78
PRODUCTION, PLANNING, EXPEDITING CLERKS	110	0.70	10.46
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	30	0.19	3.03
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	70	0.45	14.33
TRAFFIC, SHIPPING AND RECEIVING CLERKS	250	1.60	11.30
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	20	0.13	20.38
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	220	1.39	N/A
FIRST LINE SUPERVISORS - SERVICE	30	0.19	4.71
GUARDS AND WATCH GUARDS	60	0.38	2.32
JANITORS AND CLEANERS	110	0.70	11.00
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.06	0.00
ALL OTHER SERVICE WORKERS	10	0.06	88.28

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N/A NOT AVAILABLE.

TEXTILE MILL PRODUCTS
SIC - 22
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	11600	74.13	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	130	0.83	18.15
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	520	3.32	9.42
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	30	0.19	6.19
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.13	12.50
ALL OTHER PRODUCTION WORKER SUPERVISORS	80	0.51	21.16
PRECISION INSPECTORS, TESTERS, AND GRADERS	90	0.58	0.00
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	550	3.51	10.13
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACHINES	340	2.17	15.29
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	10	0.06	9.43
ALL OTHER MACHINERY MAINTENANCE MECHANICS	80	0.51	12.54
MILLWRIGHTS	60	0.38	19.50
MACHINERY MAINTENANCE WORKERS	80	0.51	19.03
MAINTENANCE REPAIRERS, GENERAL UTILITY	170	1.09	9.09
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	10	0.06	16.67
MENDERS - GARMENTS, LINENS AND RELATED	100	0.64	3.04
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.06	0.00
CARPENTERS	20	0.13	12.86
ELECTRICIANS	90	0.58	6.44
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.06	17.68
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	20	0.13	4.17
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	40	0.26	12.74
CUSTOM TAILORS AND SEWERS	20	0.13	0.00
PRECISION DYERS	120	0.77	11.38
ALL OTHER PRECISION TEXTILE AND RELATED WORKERS	220	1.41	49.92
ALL OTHER PRECISION WORKERS	100	0.64	57.08
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	110	0.70	48.13
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	90	0.58	41.14
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	160	1.02	11.76
ALL OTHER PRINTING RELATED SETTERS AND SET-UP OPERATORS	20	0.13	0.00
PRINTING PRESS MACHINE OPERATORS	70	0.45	33.97
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATO	60	0.38	0.00
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	880	5.62	18.92
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	2210	14.12	11.03
EXTRUDING AND FORMING MACHINE OPERATORS AND TENDERS	70	0.45	47.50
TEXTILE DRAW-OUT MACHINE OPERATORS AND TENDERS	110	0.70	8.20
TEXTILE BLEACHING AND DYEING MACHINE OPERATORS AND TEND	780	4.98	10.01
SEWING MACHINE OPERATORS, GARMENT	290	1.85	12.90
SEWING MACHINE OPERATORS, NON-GARMENT	100	0.64	2.91

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TEXTILE MILL PRODUCTS
SIC - 22
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SHOE SEWING MACHINE OPERATORS	20	0.13	0.00
PRESSING MACHINE OPERATORS, TEXTILE	90	0.58	45.34
FURNACE, KILN, OVEN, DRIER OR KETTLE OPERATORS AND TEND	90	0.58	31.84
BOILER OPERATORS AND TENDERS, LOW PRESSURE	50	0.32	16.20
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	110	0.70	11.74
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	100	0.64	7.52
COATING, PAINTING AND SPRAYING MACHINE OPERATORS AND TE	200	1.28	24.98
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	30	0.19	34.82
PACKAGING AND FILLING MACHINE OPERATORS	180	1.15	10.22
ALL OTHER MACHINE SETTERS	80	0.51	21.65
ALL OTHER MACHINE OPERATORS	450	2.87	33.37
PRESSERS, HAND	60	0.38	18.09
CUTTERS AND TRIMMERS, HAND	70	0.45	39.72
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	70	0.45	34.61
ALL OTHER HAND WORKERS	50	0.32	42.57
PLANT AND SYSTEMS OCCUPATIONS	20	0.13	0.00
TRUCK DRIVERS, HEAVY	40	0.26	5.40
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	40	0.26	10.31
ALL OTHER TRANSPORTATION WORKERS	10	0.06	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	220	1.41	5.67
CONVEYOR OPERATORS AND TENDERS	10	0.06	33.53
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.06	0.00
MECHANIC AND REPAIRER HELPERS	90	0.58	49.25
MACHINE FEEDERS AND OFFBEARERS	290	1.85	19.09
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	340	2.17	6.52
HAND PACKERS AND PACKAGERS	300	1.92	22.80
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	710	4.54	2.72

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BROADWOVEN FABRIC MILLS, MANMADE
SIC - 222
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	2350	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	70	2.95	N/A
FINANCIAL MANAGERS	10	0.42	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.42	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.42	0.00
INDUSTRIAL PRODUCTION MANAGERS	10	0.42	20.20
GENERAL MANAGERS AND TOP EXECUTIVES	20	0.85	10.52
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.42	0.00
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	70	2.96	N/A
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.42	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.85	0.00
ALL OTHER ENGINEERS	**	N/A	N/A
COMPUTER PROGRAMMERS	10	0.42	0.00
COMPUTER PROGRAMMER AIDES	10	0.42	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.85	17.32
SALES AND RELATED OCCUPATIONS	30	1.27	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.42	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	20	0.85	0.00
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	120	5.13	N/A
ADJUSTMENT CLERKS	10	0.43	0.00
SECRETARIES	20	0.85	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.43	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	10	0.43	0.00
GENERAL OFFICE CLERK	10	0.43	13.32
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.43	14.28
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.85	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.43	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	20	0.85	0.00
SERVICE OCCUPATIONS	30	1.28	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.43	0.00
JANITORS AND CLEANERS	20	0.85	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BROADWOVEN FABRIC MILLS, MANMADE
SIC - 222
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2030	86.41	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.85	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	40	1.70	3.53
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.43	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	40	1.70	0.00
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	60	2.55	19.75
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACHINES	80	3.40	10.51
ALL OTHER MACHINERY MAINTENANCE MECHANICS	40	1.70	0.00
MILLWRIGHTS	20	0.85	0.00
MACHINERY MAINTENANCE WORKERS	30	1.28	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.43	14.14
MENDERS - GARMENTS, LINENS AND RELATED	50	2.13	0.00
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
ELECTRICIANS	20	0.85	9.42
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
MACHINISTS	10	0.43	16.66
ALL OTHER PRINTING RELATED SETTERS AND SET-UP OPERATORS	10	0.43	0.00
PRINTING PRESS MACHINE OPERATORS	10	0.43	0.00
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	120	5.11	3.66
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	440	18.72	0.50
EXTRUDING AND FORMING MACHINE OPERATORS AND TENDERS	30	1.28	21.42
TEXTILE DRAW-OUT MACHINE OPERATORS AND TENDERS	90	3.83	7.99
TEXTILE BLEACHING AND DYEING MACHINE OPERATORS AND TEND	40	1.70	33.80
SEWING MACHINE OPERATORS, GARMENT	20	0.85	0.00
SEWING MACHINE OPERATORS, NON-GARMENT	30	1.28	0.00
COATING, PAINTING AND SPRAYING MACHINE OPERATORS AND TE	40	1.70	0.00
PACKAGING AND FILLING MACHINE OPERATORS	10	0.43	11.11
ALL OTHER MACHINE SETTERS	10	0.43	51.01
ALL OTHER MACHINE OPERATORS	60	2.55	0.00
CUTTERS AND TRIMMERS, HAND	10	0.43	0.00
ALL OTHER HAND WORKERS	20	0.85	22.33
PLANT AND SYSTEMS OCCUPATIONS	10	0.43	0.00
TRUCK DRIVERS, HEAVY	10	0.43	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	70	2.98	2.37
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	**	N/A	N/A
MACHINE FEEDERS AND OFFBEARERS	80	3.40	6.74
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	40	1.70	0.00
HAND PACKERS AND PACKAGERS	20	0.85	0.00
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	430	18.30	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

KNITTING MILLS
SIC - 225
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	2720	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	110	4.05	N/A
FINANCIAL MANAGERS	10	0.37	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.37	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.37	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.37	0.00
INDUSTRIAL PRODUCTION MANAGERS	40	1.47	0.00
GENERAL MANAGERS AND TOP EXECUTIVES	30	1.10	6.06
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	140	5.15	N/A
ACCOUNTANTS AND AUDITORS	20	0.73	0.00
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.37	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	1.10	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.37	0.00
ALL OTHER ENGINEERS	10	0.37	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.73	0.00
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.37	0.00
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH A	10	0.37	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.37	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.37	9.09
SALES AND RELATED OCCUPATIONS	10	0.37	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.37	10.87
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	280	10.30	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.37	0.00
ADJUSTMENT CLERKS	20	0.73	0.00
SECRETARIES	40	1.47	9.62
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.37	0.00
PROCUREMENT CLERKS	10	0.37	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	0.73	7.07
PAYROLL AND TIMEKEEPING CLERKS	10	0.37	0.00
BILLING, COST AND RATE CLERKS	10	0.37	0.00
GENERAL OFFICE CLERK	50	1.84	1.88

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

KNITTING MILLS
SIC - 225
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.37	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.37	0.00
SWITCHBOARD OPERATOR	10	0.37	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.73	0.00
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.37	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.37	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	1.10	4.16
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	40	1.46	N/A
GUARDS AND WATCH GUARDS	20	0.73	0.00
JANITORS AND CLEANERS	20	0.73	0.00
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2140	78.67	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.73	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	90	3.31	2.69
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.37	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	140	5.15	1.63
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACHINES	70	2.57	1.47
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	10	0.37	0.00
ALL OTHER MACHINERY MAINTENANCE MECHANICS	**	N/A	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.73	0.00
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	**	N/A	N/A
MENDERS - GARMENTS, LINENS AND RELATED	10	0.37	0.00
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
ELECTRICIANS	20	0.73	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.37	0.00
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	40	1.47	14.56
CUSTOM TAILORS AND SEWERS	20	0.73	0.00
PRECISION DYERS	20	0.73	10.16
ALL OTHER PRECISION TEXTILE AND RELATED WORKERS	50	1.84	0.00
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	20	0.73	0.00
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	40	1.47	0.00
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	550	20.22	0.93
EXTRUDING AND FORMING MACHINE OPERATORS AND TENDERS	10	0.37	0.00
TEXTILE BLEACHING AND DYEING MACHINE OPERATORS AND TEND	110	4.04	3.52

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

KNITTING MILLS
SIC - 225
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SEWING MACHINE OPERATORS, GARMENT	210	7.72	3.99
SEWING MACHINE OPERATORS, NON-GARMENT	60	2.21	5.17
SHOE SEWING MACHINE OPERATORS	20	0.74	0.00
PRESSING MACHINE OPERATORS, TEXTILE	10	0.37	0.00
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.37	0.00
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	70	2.57	0.00
CUTTING AND SLICING MACHINE OPERATORS	10	0.37	0.00
PACKAGING AND FILLING MACHINE OPERATORS	90	3.31	2.57
PRESSERS, HAND	40	1.47	0.00
CUTTERS AND TRIMMERS, HAND	10	0.37	0.00
TRUCK DRIVERS, HEAVY	10	0.37	0.00
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.37	0.00
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	1.10	0.00
MACHINE FEEDERS AND OFFBEARERS	70	2.57	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	140	5.15	2.14
HAND PACKERS AND PACKAGERS	90	3.31	6.73
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	**	N/A	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TEXTILE FINISHING, EXCEPT WOOL
SIC - 226
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3750	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	220	5.85	N/A
FINANCIAL MANAGERS	10	0.26	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.26	0.00
PURCHASING MANAGERS	10	0.26	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	20	0.53	0.00
ADMINISTRATIVE SERVICE MANAGERS	20	0.53	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.27	0.00
INDUSTRIAL PRODUCTION MANAGERS	40	1.07	0.00
GENERAL MANAGERS AND TOP EXECUTIVES	60	1.60	9.63
ALL OTHER MANAGERS AND ADMINISTRATORS	40	1.07	0.00
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	210	5.62	N/A
ACCOUNTANTS AND AUDITORS	20	0.53	0.00
ALL OTHER FINANCIAL SPECIALISTS	10	0.27	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.27	0.00
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.27	0.00
COST ESTIMATORS	10	0.27	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.27	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.27	0.00
MECHANICAL ENGINEERS	10	0.27	0.00
ALL OTHER ENGINEERS	**	N/A	N/A
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.53	0.00
CHEMISTS, EXCEPT BIOCHEMISTS	20	0.53	0.00
ALL OTHER PHYSICAL SCIENTISTS	**	N/A	N/A
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	40	1.07	0.00
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	**	N/A	N/A
COMPUTER PROGRAMMERS	10	0.27	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	30	0.80	15.56
SALES AND RELATED OCCUPATIONS	30	0.78	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.26	0.00
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.26	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.26	12.85
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	460	12.28	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TEXTILE FINISHING, EXCEPT WOOL
SIC - 226
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.26	0.00
ADJUSTMENT CLERKS	20	0.53	0.00
SECRETARIES	40	1.07	7.52
TYPISTS	10	0.27	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.27	0.00
FILE CLERKS	10	0.27	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.27	0.00
PROCUREMENT CLERKS	10	0.27	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	50	1.33	10.20
PAYROLL AND TIMEKEEPING CLERKS	10	0.27	0.00
BILLING, COST AND RATE CLERKS	20	0.53	0.00
GENERAL OFFICE CLERK	50	1.33	7.06
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	10	0.27	0.00
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.53	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.27	0.00
SWITCHBOARD OPERATOR	10	0.27	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	40	1.07	0.00
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.27	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	30	0.80	5.23
TRAFFIC, SHIPPING AND RECEIVING CLERKS	80	2.13	3.94
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	70	1.86	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.53	0.00
GUARDS AND WATCH GUARDS	20	0.53	8.83
JANITORS AND CLEANERS	30	0.80	3.22
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
ALL OTHER SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2760	73.61	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.27	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	160	4.27	3.28
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.27	0.00
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.27	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.27	0.00
PRECISION INSPECTORS, TESTERS, AND GRADERS	50	1.33	0.00
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	160	4.27	7.07
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACHINES	40	1.07	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TEXTILE FINISHING, EXCEPT WOOL
SIC - 226
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	10	0.27	23.57
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.27	0.00
MILLWRIGHTS	10	0.27	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	90	2.40	3.72
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
ELECTRICIANS	30	0.80	4.41
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.26	0.00
MACHINISTS	10	0.26	0.00
PRECISION DYERS	70	1.87	5.16
ALL OTHER PRECISION WORKERS	20	0.53	0.00
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	120	3.20	8.83
ALL OTHER PRINTING RELATED SETTERS AND SET-UP OPERATORS	10	0.26	0.00
PRINTING PRESS MACHINE OPERATORS	30	0.80	9.42
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATORS	50	1.33	0.00
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	190	5.07	1.18
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	230	6.13	3.03
TEXTILE DRAW-OUT MACHINE OPERATORS AND TENDERS	20	0.53	9.52
TEXTILE BLEACHING AND DYEING MACHINE OPERATORS AND TEND	450	12.00	1.84
SEWING MACHINE OPERATORS, GARMENT	50	1.33	7.06
SEWING MACHINE OPERATORS, NON-GARMENT	10	0.27	0.00
PRESSING MACHINE OPERATORS, TEXTILE	10	0.27	45.17
FURNACE, KILN, OVEN, DRIER OR KETTLE OPERATORS AND TEND	50	1.33	2.57
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.53	0.00
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	20	0.53	27.77
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	70	1.87	0.00
COATING, PAINTING AND SPRAYING MACHINE OPERATORS AND TE	30	0.80	0.00
PACKAGING AND FILLING MACHINE OPERATORS	40	1.07	0.00
ALL OTHER MACHINE SETTERS	50	1.33	0.00
ALL OTHER MACHINE OPERATORS	60	1.60	0.00
CUTTERS AND TRIMMERS, HAND	10	0.27	0.00
PLANT AND SYSTEMS OCCUPATIONS	10	0.27	0.00
TRUCK DRIVERS, HEAVY	10	0.27	0.00
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.27	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	90	2.40	3.15
CONVEYOR OPERATORS AND TENDERS	10	0.27	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	**	N/A	N/A
MECHANIC AND REPAIRER HELPERS	20	0.53	0.00
MACHINE FEEDERS AND OFFBEARERS	30	0.80	36.47
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	90	2.40	3.32
HAND PACKERS AND PACKAGERS	50	1.33	13.29
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	210	5.60	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS TEXTILE GOODS
SIC - 229
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3940	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	390	9.91	N/A
FINANCIAL MANAGERS	20	0.51	15.05
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.51	10.82
PURCHASING MANAGERS	10	0.26	18.84
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.76	15.38
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.26	25.75
INDUSTRIAL PRODUCTION MANAGERS	60	1.52	18.61
GENERAL MANAGERS AND TOP EXECUTIVES	110	2.79	12.33
ALL OTHER MANAGERS AND ADMINISTRATORS	130	3.30	65.56
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	350	8.89	N/A
ACCOUNTANTS AND AUDITORS	20	0.51	18.60
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.51	26.22
COST ESTIMATORS	10	0.26	33.33
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	20	0.51	22.22
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	60	1.52	30.41
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	220	5.58	46.55
SALES AND RELATED OCCUPATIONS	160	4.06	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	110	2.79	33.25
ALL OTHER SALES AND RELATED WORKERS	50	1.27	54.84
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	420	10.64	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.25	33.07
SECRETARIES	90	2.28	17.92
RECEPTIONISTS AND INFORMATION CLERKS	10	0.25	28.57
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	50	1.27	20.19
PAYROLL AND TIMEKEEPING CLERKS	10	0.25	18.63
GENERAL OFFICE CLERK	50	1.27	28.30
SWITCHBOARD OPERATOR	20	0.51	19.76
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.76	20.40
TRAFFIC, SHIPPING AND RECEIVING CLERKS	60	1.52	19.50
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	90	2.28	44.43
SERVICE OCCUPATIONS	20	0.51	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS TEXTILE GOODS
SIC - 229
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
JANITORS AND CLEANERS	20	0.51	29.80
ALL OTHER SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2600	65.99	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	60	1.52	32.34
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	90	2.28	18.56
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	80	2.03	24.08
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACHINES	90	2.28	34.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.76	25.12
ELECTRICIANS	20	0.51	19.76
ALL OTHER PRECISION WORKERS	330	8.38	60.82
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	280	7.11	24.58
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	370	9.39	32.20
ALL OTHER MACHINE SETTERS	210	5.33	45.56
ALL OTHER MACHINE OPERATORS	580	14.72	47.31
ALL OTHER HAND WORKERS	100	2.54	58.62
TRUCK DRIVERS, HEAVY	10	0.25	33.33
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	0.51	22.90
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	0.51	64.22
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	310	7.87	46.34

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

APPAREL AND OTHER TEXTILE PRODUCTS (SIC 23)

Industry Description

Establishments in this industry, known as the cutting-up and needle trades, include establishments producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics and related materials, such as leather, rubberized fabrics, plastics, and furs. Also included are establishments that manufacture clothing by cutting and joining (for example, by adhesives) materials such as paper and nonwoven textile.

Employment Trends

Employment in the apparel industry declined by 5,800 jobs or nearly 21 percent from 1986 to 1989. This substantial job loss continues a trend in effect for more than a decade. Foreign competition, automation, and the cost of labor have been cited as some of the contributing factors for this industry's employment decline.

Occupational Structure

The occupations within the apparel industry are largely concentrated within the production and maintenance category (over 79 percent of all occupations). Nearly 55 percent of workers in this industry are sewing machine operators. The number of sewing machine operators dropped between 1986 and 1989 from 13,010 to 9,800, a loss of 3,210 jobs representing a 25 percent decline.

TOP TEN OCCUPATIONS

Occupation	Jobs
Sewing Machine Operators, Garment	7,830
Sewing Machine Operators, Non-garment	1,970
All Other Helpers, Laborers, Movers - Hand	810
Pressing machine Operators, Textile	800
Hand Sewers	630
Cutters and Trimmers, Hand	630
Hand Packers and Packagers	540
General Managers and Top Executives	530
Traffic, Shipping and Receiving Clerks	520
First Line Supervisors- Production and Related	480
Textile Machine Operators and Tenders-Winding, Twisting	480

APPAREL AND OTHER TEXTILE PRODUCTS
SIC - 23
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	22650	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1020	4.50	N/A
FINANCIAL MANAGERS	60	0.27	19.69
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	30	0.13	30.00
PURCHASING MANAGERS	20	0.09	23.99
MARKETING, ADVERTISING AND RELATED MANAGERS	80	0.35	23.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	20	0.09	31.53
INDUSTRIAL PRODUCTION MANAGERS	200	0.88	25.68
GENERAL MANAGERS AND TOP EXECUTIVES	530	2.34	13.62
ALL OTHER MANAGERS AND ADMINISTRATORS	80	0.35	41.59
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	380	1.66	N/A
ACCOUNTANTS AND AUDITORS	30	0.13	27.70
ALL OTHER FINANCIAL SPECIALISTS	10	0.04	16.66
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.09	22.02
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.04	35.12
COST ESTIMATORS	20	0.09	27.21
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.09	19.24
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.04	20.20
MECHANICAL ENGINEERS	10	0.04	40.45
ALL OTHER ENGINEERS	**	N/A	N/A
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.04	45.63
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.09	28.60
COMPUTER PROGRAMMERS	20	0.09	36.23
COMPUTER PROGRAMMER AIDES	20	0.09	24.07
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.04	30.18
DESIGNERS, EXCEPT INTERIOR DESIGNERS	170	0.75	29.69
SALES AND RELATED OCCUPATIONS	520	2.29	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	30	0.13	26.71
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	220	0.97	34.09
SALESPERSONS, RETAIL TRADE	180	0.79	42.72
ALL OTHER SALES AND RELATED WORKERS	90	0.40	46.98
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2520	11.14	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

APPAREL AND OTHER TEXTILE PRODUCTS
SIC - 23
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	110	0.49	30.67
ADJUSTMENT CLERKS	70	0.31	27.84
SECRETARIES	100	0.44	32.32
RECEPTIONISTS AND INFORMATION CLERKS	30	0.13	18.70
TYPISTS	10	0.04	40.03
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.04	28.28
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.04	26.22
FILE CLERKS	20	0.09	21.93
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	200	0.88	43.71
PROCUREMENT CLERKS	10	0.04	22.36
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	360	1.59	20.55
PAYROLL AND TIMEKEEPING CLERKS	100	0.44	19.08
BILLING, COST AND RATE CLERKS	60	0.27	40.88
GENERAL OFFICE CLERK	210	0.93	30.13
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.09	41.67
DATA ENTRY KEYERS, EXCEPT COMPOSING	60	0.27	29.84
ALL OTHER OFFICE MACHINE OPERATORS	20	0.09	49.75
SWITCHBOARD OPERATOR	20	0.09	32.03
PRODUCTION, PLANNING, EXPEDITING CLERKS	120	0.53	19.42
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	50	0.22	35.32
MARKING CLERKS	40	0.18	33.98
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	260	1.15	33.64
TRAFFIC, SHIPPING AND RECEIVING CLERKS	520	2.30	23.03
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	70	0.31	20.80
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	40	0.18	49.47
SERVICE OCCUPATIONS	290	1.28	N/A
FIRST LINE SUPERVISORS - SERVICE	40	0.18	36.70
JANITORS AND CLEANERS	190	0.84	18.84
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.04	46.14
ALL OTHER SERVICE WORKERS	50	0.22	78.58
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	17920	79.13	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	40	0.18	41.14
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	480	2.12	18.15
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.09	29.45
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.09	37.19
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

APPAREL AND OTHER TEXTILE PRODUCTS
SIC - 23
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.09	26.79
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	350	1.55	28.01
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	210	0.93	24.74
ALL OTHER MACHINERY MAINTENANCE MECHANICS	40	0.18	47.52
MACHINERY MAINTENANCE WORKERS	10	0.04	38.57
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	0.31	38.32
MENDERS - GARMENTS, LINENS AND RELATED	120	0.53	37.99
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	10	0.04	0.00
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	320	1.41	27.72
CUSTOM TAILORS AND SEWERS	130	0.57	41.10
PRESSERS, DELICATE FABRICS	110	0.49	35.60
ALL OTHER PRECISION WORKERS	50	0.22	37.10
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	40	0.18	30.93
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDE	10	0.04	31.94
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	**	N/A	N/A
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDE	30	0.13	31.22
PRINTING PRESS MACHINE OPERATORS	20	0.09	22.91
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	60	0.27	35.72
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	480	2.12	47.39
SEWING MACHINE OPERATORS, GARMENT	7830	34.57	9.77
SEWING MACHINE OPERATORS, NON-GARMENT	1970	8.70	16.26
PRESSING MACHINE OPERATORS, TEXTILE	800	3.53	18.44
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.09	45.70
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	70	0.31	34.62
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	10	0.04	36.07
PACKAGING AND FILLING MACHINE OPERATORS	80	0.35	29.24
ALL OTHER MACHINE OPERATORS	210	0.93	67.90
PRESSERS, HAND	290	1.28	19.89
HAND SEWERS	630	2.78	47.94
CUTTERS AND TRIMMERS, HAND	630	2.78	27.00
PORTABLE MACHINE CUTTERS	170	0.75	40.98
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	380	1.68	45.57
ALL OTHER HAND WORKERS	320	1.41	55.53
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	0.09	40.50
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.13	33.53
CONVEYOR OPERATORS AND TENDERS	10	0.04	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	**	N/A	N/A
MACHINE FEEDERS AND OFFBEARERS	60	0.27	26.12
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	400	1.77	31.24
HAND PACKERS AND PACKAGERS	540	2.38	27.27
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	810	3.58	23.94

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEN'S AND BOYS' FURNISHINGS
SIC - 232
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	2670	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	90	3.36	N/A
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.37	19.99
INDUSTRIAL PRODUCTION MANAGERS	10	0.37	0.00
GENERAL MANAGERS AND TOP EXECUTIVES	60	2.25	6.80
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.37	49.69
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	30	1.11	N/A
ACCOUNTANTS AND AUDITORS	10	0.37	19.99
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
COMPUTER PROGRAMMERS	10	0.37	31.94
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.37	53.93
SALES AND RELATED OCCUPATIONS	60	2.25	N/A
ALL OTHER SALES AND RELATED WORKERS	60	2.25	59.85
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	220	8.23	N/A
ADJUSTMENT CLERKS	10	0.37	41.45
SECRETARIES	10	0.37	23.07
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	0.75	31.26
PAYROLL AND TIMEKEEPING CLERKS	10	0.37	12.49
BILLING, COST AND RATE CLERKS	10	0.37	41.45
GENERAL OFFICE CLERK	20	0.75	27.83
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.75	42.16
TRAFFIC, SHIPPING AND RECEIVING CLERKS	20	0.75	32.65
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	90	3.37	24.09
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.38	55.90
SERVICE OCCUPATIONS	20	0.76	N/A
JANITORS AND CLEANERS	10	0.38	10.10
ALL OTHER SERVICE WORKERS	10	0.38	65.40
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2250	84.29	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEN'S AND BOYS' FURNISHINGS
SIC - 232
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	80	3.00	3.92
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	20	0.75	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	10	0.38	0.00
ALL OTHER PRECISION WORKERS	60	2.25	66.60
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	130	4.87	48.13
SEWING MACHINE OPERATORS, GARMENT	1530	57.30	4.38
PRESSING MACHINE OPERATORS, TEXTILE	170	6.37	16.02
ALL OTHER MACHINE SETTERS	**	N/A	N/A
ALL OTHER MACHINE OPERATORS	130	4.87	69.38
PRESSERS, HAND	50	1.87	6:80
PORTABLE MACHINE CUTTERS	20	0.75	44.92
ALL OTHER HAND WORKERS	40	1.50	76.32
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	**	N/A	N/A
CONVEYOR OPERATORS AND TENDERS	10	0.38	0.00
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	**	N/A	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

WOMEN'S AND MISSES' OUTERWEAR
SIC - 233
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6050	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	260	4.28	N/A
FINANCIAL MANAGERS	20	0.33	22.94
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.16	42.84
PURCHASING MANAGERS	10	0.16	31.42
MARKETING, ADVERTISING AND RELATED MANAGERS	20	0.33	35.13
INDUSTRIAL PRODUCTION MANAGERS	50	0.83	29.43
GENERAL MANAGERS AND TOP EXECUTIVES	140	2.31	15.51
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.16	91.23
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	90	1.46	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.16	23.57
COST ESTIMATORS	10	0.16	34.99
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.16	30.61
COMPUTER PROGRAMMER AIDES	10	0.16	32.77
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.66	26.35
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.16	57.73
SALES AND RELATED OCCUPATIONS	210	3.46	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.16	35.13
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	80	1.32	29.30
SALESPERSONS, RETAIL TRADE	80	1.32	33.16
ALL OTHER SALES AND RELATED WORKERS	40	0.66	47.81
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	700	11.59	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	30	0.50	22.34
ADJUSTMENT CLERKS	10	0.16	44.72
SECRETARIES	30	0.50	44.46
RECEPTIONISTS AND INFORMATION CLERKS	10	0.16	27.95
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	130	2.15	18.03
PAYROLL AND TIMEKEEPING CLERKS	30	0.50	14.90
BILLING, COST AND RATE CLERKS	30	0.50	34.94
GENERAL OFFICE CLERK	70	1.16	21.26
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.16	37.26
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.17	45.81

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

WOMEN'S AND MISSES' OUTERWEAR
SIC - 233
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.50	29.05
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	20	0.33	41.57
MARKING CLERKS	20	0.33	40.75
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	70	1.16	23.24
TRAFFIC, SHIPPING AND RECEIVING CLERKS	190	3.14	26.01
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.17	84.96
SERVICE OCCUPATIONS	70	1.17	N/A
FIRST LINE SUPERVISORS - SERVICE	30	0.50	21.12
GUARDS AND WATCH GUARDS	10	0.17	45.82
JANITORS AND CLEANERS	30	0.50	15.97
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4720	78.04	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	100	1.65	17.86
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.17	32.77
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	90	1.49	32.16
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	80	1.32	36.24
MACHINERY MAINTENANCE WORKERS	10	0.17	47.14
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.17	47.14
MENDERS - GARMENTS, LINENS AND RELATED	70	1.16	38.25
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	70	1.16	26.83
CUSTOM TAILORS AND SEWERS	60	0.99	33.67
PRESSERS, DELICATE FABRICS	80	1.32	26.98
ALL OTHER PRECISION TEXTILE AND RELATED WORKERS	20	0.33	45.07
ALL OTHER PRECISION WORKERS	**	N/A	N/A
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	20	0.33	24.68
SEWING MACHINE OPERATORS, GARMENT	2500	41.32	8.47
PRESSING MACHINE OPERATORS, TEXTILE	190	3.14	17.98
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	50	0.83	33.25
ALL OTHER MACHINE OPERATORS	30	0.50	78.21
PRESSERS, HAND	150	2.48	17.61
HAND SEWERS	320	5.29	38.91
CUTTERS AND TRIMMERS, HAND	170	2.81	22.30
PORTABLE MACHINE CUTTERS	40	0.66	28.06
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	20	0.33	36.40
ALL OTHER HAND WORKERS	110	1.82	51.54
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	70	1.16	39.93
HAND PACKERS AND PACKAGERS	180	2.98	34.73
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	270	4.46	16.35

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS APPAREL AND ACCESSORIES
SIC - 238
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1610	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	120	7.46	N/A
FINANCIAL MANAGERS	10	0.62	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	30	1.87	0.00
INDUSTRIAL PRODUCTION MANAGERS	20	1.24	9.31
GENERAL MANAGERS AND TOP EXECUTIVES	40	2.49	8.78
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.24	19.50
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	20	1.24	N/A
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	1.24	15.81
SALES AND RELATED OCCUPATIONS	60	3.72	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.62	16.66
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.62	16.66
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.62	16.66
SALESPERSONS, RETAIL TRADE	20	1.24	25.68
ALL OTHER SALES AND RELATED WORKERS	10	0.62	22.58
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	170	10.55	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.62	15.71
ADJUSTMENT CLERKS	10	0.62	0.00
SECRETARIES	10	0.62	19.99
RECEPTIONISTS AND INFORMATION CLERKS	10	0.62	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.62	28.57
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.24	11.50
PAYROLL AND TIMEKEEPING CLERKS	10	0.62	24.99
GENERAL OFFICE CLERK	20	1.24	16.97
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	20	1.24	22.36
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.62	12.49
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	1.87	8.60
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.62	22.04
SERVICE OCCUPATIONS	10	0.62	N/A
JANITORS AND CLEANERS	10	0.62	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS APPAREL AND ACCESSORIES
SIC - 238
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1230	76.41	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.62	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	20	1.24	6.66
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.62	16.66
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	20	1.24	11.54
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	10	0.62	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.62	0.00
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	30	1.86	12.47
CUSTOM TAILORS AND SEWERS	10	0.62	36.36
ALL OTHER PRECISION WORKERS	10	0.62	0.00
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	30	1.86	38.57
SEWING MACHINE OPERATORS, GARMENT	540	33.54	7.36
SEWING MACHINE OPERATORS, NON-GARMENT	80	4.97	23.70
PRESSING MACHINE OPERATORS, TEXTILE	30	1.87	10.47
PRESSERS, HAND	50	3.11	10.84
HAND SEWERS	30	1.87	30.30
CUTTERS AND TRIMMERS, HAND	90	5.59	3.59
PORTABLE MACHINE CUTTERS	10	0.62	0.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	130	8.08	11.63
ALL OTHER HAND WORKERS	30	1.87	11.94
HAND PACKERS AND PACKAGERS	10	0.62	21.75
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	70	4.35	21.73

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC - 239
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6700	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	410	6.12	N/A
FINANCIAL MANAGERS	20	0.30	18.44
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.15	22.04
PURCHASING MANAGERS	10	0.15	27.21
MARKETING, ADVERTISING AND RELATED MANAGERS	20	0.30	33.67
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.15	28.74
INDUSTRIAL PRODUCTION MANAGERS	60	0.89	30.92
GENERAL MANAGERS AND TOP EXECUTIVES	250	3.73	15.68
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.45	49.84
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	180	2.69	N/A
ACCOUNTANTS AND AUDITORS	20	0.30	27.48
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.15	27.95
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.15	48.98
COST ESTIMATORS	10	0.15	34.99
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.15	31.49
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.15	44.72
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	**	N/A	N/A
COMPUTER PROGRAMMERS	10	0.15	16.66
COMPUTER PROGRAMMER AIDES	10	0.15	12.49
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	**	N/A	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	90	1.34	36.74
SALES AND RELATED OCCUPATIONS	160	2.39	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.15	25.51
SALES ENGINEERS	**	N/A	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	110	1.64	32.94
ALL OTHER SALES AND RELATED WORKERS	40	0.60	65.17
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	970	14.49	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	40	0.60	24.11
ADJUSTMENT CLERKS	40	0.60	23.38
SECRETARIES	40	0.60	28.02
RECEPTIONISTS AND INFORMATION CLERKS	10	0.15	19.99

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC - 239
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
TYPISTS	10	0.15	43.03
FILE CLERKS	20	0.30	22.53
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	160	2.39	44.68
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	150	2.24	20.06
PAYROLL AND TIMEKEEPING CLERKS	20	0.30	18.97
GENERAL OFFICE CLERK	20	0.30	28.86
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.45	24.00
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	10	0.15	12.49
PRODUCTION, PLANNING, EXPEDITING CLERKS	70	1.04	12.37
MARKING CLERKS	10	0.15	40.40
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	90	1.34	25.60
TRAFFIC, SHIPPING AND RECEIVING CLERKS	180	2.69	20.11
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	70	1.04	59.57
SERVICE OCCUPATIONS	120	1.79	N/A
JANITORS AND CLEANERS	80	1.19	27.17
ALL OTHER SERVICE WORKERS	40	0.60	84.90
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4860	72.52	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.15	31.94
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	150	2.24	14.75
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.15	34.64
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.15	31.42
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.15	31.62
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	160	2.39	32.36
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACHINES	20	0.30	34.69
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	60	0.89	22.01
ALL OTHER MACHINERY MAINTENANCE MECHANICS	**	N/A	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.60	39.96
MENDERS - GARMENTS, LINENS AND RELATED	30	0.45	23.70
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	160	2.39	34.68
ALL OTHER PRECISION WORKERS	10	0.15	55.52
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	40	0.60	30.93
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDE	10	0.15	31.94
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	**	N/A	N/A
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDE	30	0.45	31.22

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FABRICATED TEXTILE PRODUCTS
SIC - 239
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRINTING PRESS MACHINE OPERATORS	20	0.30	22.91
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	50	0.74	42.89
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	260	3.88	47.28
SEWING MACHINE OPERATORS, GARMENT	250	3.73	22.12
SEWING MACHINE OPERATORS, NON-GARMENT	1810	27.01	12.85
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	10	0.15	48.10
CUTTING AND SLICING MACHINE OPERATORS	30	0.45	41.76
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	10	0.15	28.86
PACKAGING AND FILLING MACHINE OPERATORS	80	1.19	29.62
ALL OTHER MACHINE OPERATORS	110	1.64	79.14
CUTTERS AND TRIMMERS, HAND	240	3.58	33.10
PORTABLE MACHINE CUTTERS	30	0.45	28.29
ALL OTHER HAND WORKERS	210	3.13	67.53
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.15	48.10
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.30	37.90
MACHINE FEEDERS AND OFFBEARERS	50	0.74	27.09
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	240	3.58	23.66
HAND PACKERS AND PACKAGERS	310	4.62	22.43
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	370	5.52	34.98

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

LUMBER AND WOOD PRODUCTS
(SIC 24)

Industry Description

This major group includes logging camps, sawmills, lathe mills, shingle mills, planing mills, plywood mills, veneer mills and establishments engaged in manufacturing finished articles made entirely or mainly of wood or wood substitutes.

Employment Trends

The employment level in this industry decreased 9.4 percent from 5,300 workers in 1986 to 4,800 workers in 1989. Causes of the decline include increased mechanization and improved automation, competition from materials used as alternatives to wood in many products, and jobs lost to imports.

Occupational Structure

Production and maintenance occupations, with 63.2 percent of the total employment, dominate the industry. Within this category, the occupations of cabinetmakers and bench carpenters, 650 workers, and wood machinists, 270 workers, account for 30.2 percent of the jobs. Various machine operators and tenders occupations represent 21.3 percent of the jobs in the category.

TOP TEN OCCUPATIONS

Occupation	Jobs
Cabinetmakers and Bench Carpenters	650
General Managers and Top Executives	320
Wood Machinists	270
All Other Machine Operators	240
Assemblers and Fabricators-except Machine,Electrical	240
Sales Representatives, except Scientific and Related	230
Freight, Stock and Material Handlers, Hand	180
Truck Drivers, Heavy	140
Carpenters	140
Bookkeeping, Accounting, Auditing Clerks	130

LUMBER AND WOOD PRODUCTS
SIC - 24
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	4830	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	530	10.96	N/A
FINANCIAL MANAGERS	30	0.62	21.52
PURCHASING MANAGERS	10	0.21	12.86
MARKETING, ADVERTISING AND RELATED MANAGERS	50	1.03	28.83
ADMINISTRATIVE SERVICE MANAGERS	10	0.21	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	20	0.41	36.86
INDUSTRIAL PRODUCTION MANAGERS	80	1.65	17.36
GENERAL MANAGERS AND TOP EXECUTIVES	320	6.62	10.90
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.21	40.66
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	190	3.94	N/A
ACCOUNTANTS AND AUDITORS	20	0.41	12.07
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	0.62	17.22
COST ESTIMATORS	30	0.62	11.59
MECHANICAL ENGINEERS	10	0.21	23.57
DRAFTERS	60	1.24	8.23
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.21	0.00
COMPUTER PROGRAMMERS	10	0.21	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.21	18.57
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.21	71.58
SALES AND RELATED OCCUPATIONS	300	6.22	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.21	23.57
SALES ENGINEERS	10	0.21	30.17
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.21	46.70
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	230	4.76	20.07
SALESPERSONS, RETAIL TRADE	30	0.62	34.52
ALL OTHER SALES AND RELATED WORKERS	10	0.21	0.00
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	630	13.04	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	0.41	29.14
ADJUSTMENT CLERKS	20	0.41	33.23
SECRETARIES	120	2.48	19.67
RECEPTIONISTS AND INFORMATION CLERKS	10	0.21	12.85
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.21	37.79

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

LUMBER AND WOOD PRODUCTS
SIC - 24
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	20	0.41	24.94
PROCUREMENT CLERKS	10	0.21	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	130	2.69	18.64
PAYROLL AND TIMEKEEPING CLERKS	10	0.21	15.71
BILLING, COST AND RATE CLERKS	10	0.21	20.33
GENERAL OFFICE CLERK	120	2.48	20.89
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.21	19.24
SWITCHBOARD OPERATOR	10	0.21	10.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.41	20.39
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	20	0.41	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	80	1.66	16.76
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.21	31.18
SERVICE OCCUPATIONS	30	0.62	N/A
JANITORS AND CLEANERS	30	0.62	9.65
ALL OTHER SERVICE WORKERS	**	N/A	N/A
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	100	2.07	N/A
ALL OTHER AGRICULTURAL, FORESTRY AND RELATED WORKERS	100	2.07	53.36
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	3050	63.15	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	120	2.48	19.35
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.21	20.00
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.41	20.75
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	30	0.62	46.72
MACHINERY MAINTENANCE MECHANICS	20	0.41	25.96
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.83	20.98
INSTALLERS AND REPAIRERS - MANUFACTURING BUILDING, ETC	30	0.62	16.31
CARPENTERS	140	2.90	11.93
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	30	0.62	22.42
TOOL AND DIE MAKERS	10	0.21	30.00
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	40	0.83	23.62
WOOD MACHINISTS	270	5.59	34.26
CABINETMAKERS AND BENCH CARPENTERS	650	13.46	6.10
ALL OTHER PRECISION WORKERS	70	1.45	59.10
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	30	0.62	18.88
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	**	N/A	N/A
SAWING MACHINE SETTERS AND SET-UP OPERATORS	20	0.41	25.19

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

LUMBER AND WOOD PRODUCTS
SIC - 24
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
HEAD SAWYERS	20	0.41	32.71
SAWING MACHINE OPERATORS	120	2.48	36.04
WOODWORKING MACHINE SETTERS AND SET-UP OPERATORS	40	0.83	23.35
WOODWORKING MACHINE OPERATORS AND TENDERS, EXCEPT SAWING	100	2.07	43.21
SEWING MACHINE OPERATORS, NON-GARMENT	20	0.41	22.11
CUTTING AND SLICING MACHINE OPERATORS	10	0.21	10.10
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	10	0.21	48.06
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	30	0.62	13.15
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	10	0.21	14.28
ALL OTHER MACHINE SETTERS	**	N/A	N/A
ALL OTHER MACHINE OPERATORS	240	4.97	59.84
WELDERS AND CUTTERS	10	0.21	28.28
CUTTERS AND TRIMMERS, HAND	20	0.41	35.58
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	240	4.97	20.00
ALL OTHER HAND WORKERS	10	0.21	0.00
TRUCK DRIVERS, HEAVY	140	2.90	25.09
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.21	24.84
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	40	0.83	37.52
MECHANIC AND REPAIRER HELPERS	10	0.21	34.64
CONSTRUCTIVE TRADES, EXTRACTIVE WORKER HELPER	40	0.83	37.94
MACHINE FEEDERS AND OFFBEARERS	100	2.07	41.89
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	180	3.73	24.78
HAND PACKERS AND PACKAGERS	30	0.62	40.13
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	90	1.86	43.47

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MILLWORK, PLYWOOD AND STRUCTURAL MEMBERS
SIC - 243
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	2580	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	240	9.31	N/A
FINANCIAL MANAGERS	10	0.39	12.37
PURCHASING MANAGERS	10	0.39	23.57
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.39	19.24
INDUSTRIAL PRODUCTION MANAGERS	40	1.55	12.24
GENERAL MANAGERS AND TOP EXECUTIVES	160	6.20	4.42
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.39	49.69
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	70	2.71	N/A
ACCOUNTANTS AND AUDITORS	10	0.39	9.09
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.39	8.33
COST ESTIMATORS	20	0.77	12.85
DRAFTERS	20	0.77	22.33
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.39	60.85
SALES AND RELATED OCCUPATIONS	200	7.76	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.39	40.40
SALES ENGINEERS	10	0.39	16.66
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.39	34.64
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	140	5.43	15.67
SALESPERSONS, RETAIL TRADE	30	1.16	46.47
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	280	10.85	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.39	37.48
SECRETARIES	50	1.94	11.65
RECEPTIONISTS AND INFORMATION CLERKS	10	0.39	17.67
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	60	2.32	12.55
BILLING, COST AND RATE CLERKS	10	0.39	27.95
GENERAL OFFICE CLERK	60	2.32	9.11
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.39	42.64
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.39	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	40	1.55	8.54
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	0.77	60.44
SERVICE OCCUPATIONS	10	0.39	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MILLWORK, PLYWOOD AND STRUCTURAL MEMBERS
SIC - 243
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
JANITORS AND CLEANERS	10	0.39	14.14
ALL OTHER SERVICE WORKERS	**	N/A	N/A
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	10	0.39	N/A
FIRST LINE SUPERVISORS - AGRICULTURAL, FORESTRY, FISHING	10	0.39	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1770	68.59	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	60	2.32	10.45
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.39	36.32
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	20	0.77	41.09
MACHINERY MAINTENANCE MECHANICS	10	0.39	12.85
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.39	7.14
INSTALLERS AND REPAIRERS - MANUFACTURING BUILDING, ETC	30	1.16	16.31
CARPENTERS	80	3.10	13.30
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	20	0.77	15.67
WOOD MACHINISTS	120	4.65	18.87
CABINETMAKERS AND BENCH CARPENTERS	600	23.26	5.03
ALL OTHER PRECISION WORKERS	60	2.33	60.90
SAWING MACHINE OPERATORS	10	0.39	12.37
WOODWORKING MACHINE SETTERS AND SET-UP OPERATORS	30	1.16	20.28
WOODWORKING MACHINE OPERATORS AND TENDERS, EXCEPT SAWING	30	1.16	40.87
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	20	0.77	13.97
ALL OTHER MACHINE SETTERS	20	0.77	63.55
ALL OTHER MACHINE OPERATORS	220	8.53	62.65
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	100	3.88	16.34
ALL OTHER HAND WORKERS	20	0.77	56.46
TRUCK DRIVERS, HEAVY	60	2.33	17.43
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.39	44.72
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.39	20.32
CONSTRUCTIVE TRADES, EXTRACTIVE WORKER HELPER	20	0.77	32.86
MACHINE FEEDERS AND OFFBEARERS	50	1.94	29.55
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	30	1.16	15.27
HAND PACKERS AND PACKAGERS	20	0.77	44.92
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	100	3.88	44.83

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FURNITURE AND FIXTURES
(SIC 25)

Industry Description

This industry group includes establishments engaged in manufacturing, from both wood and metal, household, office, public building, and restaurant furniture; and office and store fixtures.

Employment Trends

The employment level in this industry decreased nearly 22 percent, from 8,300 workers in 1986 to 6,500 in 1989, a loss of 1,800 jobs.

Occupational Structure

The production and maintenance occupational categories account for 4,530 workers or 68.7 percent of the industry employment. Next in size is the clerical category with just 820 workers or 12.4 percent of the total.
Eight of the top ten ranked occupations are in the production and maintenance category with cabinetmakers and bench carpenters, 610 workers, the largest of all the occupations in this industry.

TOP TEN OCCUPATIONS

Occupation	Jobs
Cabinetmakers and Bench Carpenters	610
Assemblers and Fabricators-ex. Machine and Elect.	520
General Managers and Top Executives	360
All Other Precision Workers	340
Wood Machinists	260
Upholsterers	210
Sales Representatives,except Scientific and Related	190
First Line Supervisors-Production and Related	170
Furniture Finishers	170
Woodworking Machine Operators and Tenders,ex.Sawing	160

FURNITURE AND FIXTURES
SIC - 25
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6600	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	630	9.55	N/A
FINANCIAL MANAGERS	50	0.76	13.84
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.30	5.88
PURCHASING MANAGERS	20	0.30	11.38
MARKETING, ADVERTISING AND RELATED MANAGERS	40	0.61	14.77
ADMINISTRATIVE SERVICE MANAGERS	10	0.15	11.11
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.15	7.14
INDUSTRIAL PRODUCTION MANAGERS	100	1.52	16.36
GENERAL MANAGERS AND TOP EXECUTIVES	360	5.46	10.53
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.30	15.56
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	240	3.62	N/A
ACCOUNTANTS AND AUDITORS	40	0.61	19.20
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	0.45	18.21
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.15	0.00
COST ESTIMATORS	30	0.45	26.29
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.15	12.49
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.15	15.75
MECHANICAL ENGINEERS	20	0.30	21.51
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.15	49.59
DRAFTERS	40	0.61	24.36
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.15	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.15	0.00
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.15	27.95
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.15	46.71
SALES AND RELATED OCCUPATIONS	300	4.53	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	20	0.30	26.39
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	30	0.45	35.62
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	190	2.88	25.97
SALESPERSONS, RETAIL TRADE	30	0.45	17.13
ALL OTHER SALES AND RELATED WORKERS	30	0.45	41.58
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	820	12.41	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FURNITURE AND FIXTURES
SIC - 25
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	30	0.45	21.30
ADJUSTMENT CLERKS	40	0.61	26.92
SECRETARIES	110	1.67	18.12
RECEPTIONISTS AND INFORMATION CLERKS	20	0.30	12.07
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.15	24.74
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.15	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	40	0.61	7.86
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	140	2.12	17.86
PAYROLL AND TIMEKEEPING CLERKS	30	0.45	9.28
BILLING, COST AND RATE CLERKS	10	0.15	26.82
GENERAL OFFICE CLERK	100	1.52	19.99
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.15	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.15	18.63
ALL OTHER OFFICE MACHINE OPERATORS	10	0.15	0.00
SWITCHBOARD OPERATOR	10	0.15	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.30	16.72
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	90	1.36	29.57
TRAFFIC, SHIPPING AND RECEIVING CLERKS	110	1.67	13.90
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	10	0.15	37.79
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.15	48.96
SERVICE OCCUPATIONS	80	1.21	N/A
GUARDS AND WATCH GUARDS	20	0.30	38.72
JANITORS AND CLEANERS	50	0.76	18.86
ALL OTHER SERVICE WORKERS	10	0.15	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4530	68.68	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	30	0.46	33.34
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	170	2.58	13.76
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	30	0.46	30.48
ALL OTHER PRODUCTION WORKER SUPERVISORS	20	0.30	28.64
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	0.61	13.68
MACHINERY MAINTENANCE MECHANICS	30	0.46	16.89
MACHINERY MAINTENANCE WORKERS	10	0.15	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.46	15.39
INSTALLERS AND REPAIRERS - MANUFACTURING BUILDING, ETC	20	0.30	43.72
ELECTRICIANS	10	0.15	0.00
TOOL AND DIE MAKERS	10	0.15	11.79
MACHINISTS	10	0.15	19.99
SHEET METAL WORKERS	150	2.27	24.34

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FURNITURE AND FIXTURES
SIC - 25
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PATTERN AND MODEL MAKERS, WOOD	10	0.15	7.14
PATTERN MARKERS, WOOD	40	0.61	24.12
WOOD MACHINISTS	260	3.94	13.31
CABINETMAKERS AND BENCH CARPENTERS	610	9.24	17.39
FURNITURE FINISHERS	170	2.58	24.57
ALL OTHER PRECISION WOODWORKERS	140	2.12	12.25
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	10	0.15	35.21
UPHOLSTERERS	210	3.18	32.74
ALL OTHER PRECISION TEXTILE AND RELATED WORKERS	40	0.61	10.75
ALL OTHER PRECISION WORKERS	340	5.15	50.45
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	20	0.30	43.50
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.15	12.86
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERAT	80	1.21	35.95
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	10	0.15	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	50	0.76	47.14
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	10	0.15	48.98
WELDING MACHINE SETTERS AND SET-UP OPERATORS	50	0.76	1.85
SAWING MACHINE OPERATORS	80	1.21	24.03
WOODWORKING MACHINE SETTERS AND SET-UP OPERATORS	100	1.52	30.21
WOODWORKING MACHINE OPERATORS AND TENDERS, EXCEPT SAWING	160	2.42	26.78
SEWING MACHINE OPERATORS, NON-GARMENT	130	1.97	34.24
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	50	0.76	26.98
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	50	0.76	25.33
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	30	0.46	34.62
PACKAGING AND FILLING MACHINE OPERATORS	30	0.46	25.60
ALL OTHER MACHINE SETTERS	30	0.46	35.97
ALL OTHER MACHINE OPERATORS	90	1.36	57.15
WELDERS AND CUTTERS	10	0.15	28.28
CUTTERS AND TRIMMERS, HAND	40	0.61	35.59
PAINTING, COATING AND DECORATING WORKERS - HAND	40	0.61	0.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	520	7.88	14.49
ALL OTHER HAND WORKERS	60	0.91	59.62
TRUCK DRIVERS, HEAVY	90	1.36	28.87
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	30	0.46	26.53
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.30	19.76
CONVEYOR OPERATORS AND TENDERS	30	0.46	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	0.30	0.00
MECHANIC AND REPAIRER HELPERS	10	0.15	20.20
MACHINE FEEDERS AND OFFBEARERS	40	0.61	25.01
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	60	0.91	18.95
HAND PACKERS AND PACKAGERS	140	2.12	28.88
ALL OTHER HELPERS,LABORERS,MOVERS-HAND	50	0.76	3.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

HOUSEHOLD FURNITURE
SIC - 251
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3900	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	360	9.20	N/A
FINANCIAL MANAGERS	20	0.51	10.58
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.25	12.49
PURCHASING MANAGERS	20	0.51	10.82
MARKETING, ADVERTISING AND RELATED MANAGERS	20	0.51	18.42
ADMINISTRATIVE SERVICE MANAGERS	10	0.25	19.99
INDUSTRIAL PRODUCTION MANAGERS	60	1.54	20.29
GENERAL MANAGERS AND TOP EXECUTIVES	210	5.38	11.11
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.25	24.05
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	70	1.77	N/A
ACCOUNTANTS AND AUDITORS	20	0.51	31.13
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.25	24.99
COST ESTIMATORS	10	0.25	46.35
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.25	19.99
ALL OTHER ENGINEERS	**	N/A	N/A
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.25	49.48
DRAFTERS	10	0.26	48.95
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
SALES AND RELATED OCCUPATIONS	130	3.33	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.26	28.74
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	0.51	28.72
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	70	1.79	22.26
ALL OTHER SALES AND RELATED WORKERS	30	0.77	42.93
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	410	10.54	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	0.51	21.20
ADJUSTMENT CLERKS	20	0.51	26.08
SECRETARIES	70	1.79	19.37
RECEPTIONISTS AND INFORMATION CLERKS	10	0.26	14.14
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.26	34.64
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.26	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.26	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	50	1.28	18.39

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

HOUSEHOLD FURNITURE
SIC - 251
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	10	0.26	10.10
BILLING, COST AND RATE CLERKS	10	0.26	28.28
GENERAL OFFICE CLERK	60	1.54	25.60
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.26	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.26	20.32
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	10	0.26	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.26	12.37
TRAFFIC, SHIPPING AND RECEIVING CLERKS	60	1.54	15.37
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	0.77	61.98
SERVICE OCCUPATIONS	60	1.54	N/A
GUARDS AND WATCH GUARDS	20	0.51	38.72
JANITORS AND CLEANERS	30	0.77	24.98
ALL OTHER SERVICE WORKERS	10	0.26	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2870	73.62	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.51	29.97
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	100	2.56	14.93
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.26	44.09
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.26	32.73
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	20	0.51	12.29
MACHINERY MAINTENANCE MECHANICS	20	0.51	17.64
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.77	17.95
ELECTRICIANS	10	0.26	0.00
SHEET METAL WORKERS	10	0.26	0.00
PATTERN AND MODEL MAKERS, WOOD	10	0.26	9.99
PATTERN MARKERS, WOOD	10	0.26	0.00
WOOD MACHINISTS	220	5.64	13.91
CABINETMAKERS AND BENCH CARPENTERS	330	8.46	21.39
FURNITURE FINISHERS	140	3.59	20.15
ALL OTHER PRECISION WOODWORKERS	130	3.33	7.69
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	10	0.26	43.03
UPHOLSTERERS	180	4.61	31.75
ALL OTHER PRECISION TEXTILE AND RELATED WORKERS	40	1.03	10.75
ALL OTHER PRECISION WORKERS	100	2.56	64.38
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	10	0.26	41.64
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.26	23.57
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERAT	50	1.28	40.09

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

HOUSEHOLD FURNITURE
SIC - 251
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
WELDING MACHINE OPERATORS AND TENDERS	10	0.26	40.65
SAWING MACHINE OPERATORS	80	2.05	23.97
WOODWORKING MACHINE SETTERS AND SET-UP OPERATORS	80	2.05	29.23
WOODWORKING MACHINE OPERATORS AND TENDERS, EXCEPT SAWING	150	3.85	26.45
SEWING MACHINE OPERATORS, NON-GARMENT	120	3.08	31.73
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	20	0.51	38.31
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	30	0.77	23.07
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	30	0.77	34.06
PACKAGING AND FILLING MACHINE OPERATORS	20	0.51	34.91
ALL OTHER MACHINE SETTERS	10	0.26	44.88
ALL OTHER MACHINE OPERATORS	40	1.03	58.58
CUTTERS AND TRIMMERS, HAND	30	0.77	34.29
PAINTING, COATING AND DECORATING WORKERS - HAND	30	0.77	0.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	340	8.72	14.64
ALL OTHER HAND WORKERS	40	1.03	45.92
TRUCK DRIVERS, HEAVY	70	1.79	30.89
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.26	34.99
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.26	22.58
CONVEYOR OPERATORS AND TENDERS	30	0.77	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	0.51	0.00
MECHANIC AND REPAIRER HELPERS	10	0.26	28.28
MACHINE FEEDERS AND OFFBEARERS	30	0.77	35.66
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	50	1.28	6.37
HAND PACKERS AND PACKAGERS	90	2.31	27.59
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	50	1.28	3.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PARTITIONS AND FIXTURES
SIC - 254
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1670	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	160	9.58	N/A
FINANCIAL MANAGERS	20	1.20	21.32
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.60	0.00
PURCHASING MANAGERS	10	0.60	19.99
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.60	22.22
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.60	16.66
INDUSTRIAL PRODUCTION MANAGERS	30	1.79	10.87
GENERAL MANAGERS AND TOP EXECUTIVES	70	4.19	7.69
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	100	5.99	N/A
ACCOUNTANTS AND AUDITORS	20	1.20	6.66
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	1.20	23.09
COST ESTIMATORS	10	0.60	18.18
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
DRAFTERS	30	1.79	14.42
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.60	31.94
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.60	64.54
SALES AND RELATED OCCUPATIONS	120	7.19	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.60	26.45
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	80	4.79	22.42
SALESPERSONS, RETAIL TRADE	20	1.20	0.00
ALL OTHER SALES AND RELATED WORKERS	10	0.60	64.78
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	230	13.77	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.60	37.50
ADJUSTMENT CLERKS	10	0.60	37.79
SECRETARIES	20	1.20	9.72
RECEPTIONISTS AND INFORMATION CLERKS	10	0.60	9.99
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	40	2.39	11.71
PAYROLL AND TIMEKEEPING CLERKS	10	0.60	9.99
GENERAL OFFICE CLERK	20	1.20	14.42

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PARTITIONS AND FIXTURES
SIC - 254
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	50	2.99	21.82
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	1.79	6.57
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	20	1.20	45.53
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.60	56.56
SERVICE OCCUPATIONS	10	0.60	N/A
JANITORS AND CLEANERS	10	0.60	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1050	62.87	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.60	48.41
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	50	2.99	17.19
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	30	1.79	27.46
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	10	0.60	24.84
MACHINERY MAINTENANCE MECHANICS	10	0.60	31.94
PATTERN MARKERS, WOOD	30	1.79	32.73
WOOD MACHINISTS	30	1.79	5.24
CABINETMAKERS AND BENCH CARPENTERS	220	13.17	8.36
FURNITURE FINISHERS	10	0.60	15.71
ALL OTHER PRECISION WOODWORKERS	**	N/A	N/A
UPHOLSTERERS	**	N/A	N/A
ALL OTHER PRECISION WORKERS	270	16.17	55.68
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERAT	30	1.80	33.99
WELDING MACHINE SETTERS AND SET-UP OPERATORS	50	2.99	0.00
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	10	0.60	30.62
SAWING MACHINE SETTERS AND SET-UP OPERATORS	10	0.60	31.94
WOODWORKING MACHINE SETTERS AND SET-UP OPERATORS	30	1.80	33.22
WOODWORKING MACHINE OPERATORS AND TENDERS, EXCEPT SAWING	10	0.60	30.30
COATING, PAINTING AND SPRAYING MACHINE OPERATORS AND TE	20	1.20	31.25
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	10	0.60	37.26
PACKAGING AND FILLING MACHINE OPERATORS	10	0.60	0.00
ALL OTHER MACHINE SETTERS	10	0.60	58.66
ALL OTHER MACHINE OPERATORS	50	2.99	66.01
CUTTERS AND TRIMMERS, HAND	10	0.60	39.99
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	80	4.79	17.07
ALL OTHER HAND WORKERS	10	0.60	56.56
TRUCK DRIVERS, HEAVY	10	0.60	35.35
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.60	14.28
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	20	1.20	56.74

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPER AND ALLIED PRODUCTS
(SIC 26)

Industry Description

Establishments in this industry manufacture pulp from wood and other cellulose fibers, and from rags; and manufacture paper and paperboard into converted products such as coated paper, bag, boxes and envelopes. Also included are establishments that manufacture bags of plastic film and sheet.

Employment Trends

Between the years 1986 and 1989, employment in this industry has fallen by 1,400 from 24,800 to 23,400, a decline of 5.6 percent.

Occupational Structure

The biggest change occurred in production and maintenance jobs, followed by those in the clerical occupations. Jobs in production and maintenance declined by 3.9 percent from 17,220 workers to 16,540 workers, and clerical jobs declined by 16.2 percent from 2,970 workers to 2,490 workers.

Nearly all of the largest occupations in this labor intensive industry are in the production and maintenance category. The ten ranked occupations account for 47.2 percent of total industry employment with all other machine setters and set-up operators,2,870 workers, and paper goods machine setters and set-up operators, 1,590 workers, leading the way.

TOP TEN OCCUPATIONS

Occupation	Jobs
All Other Machine Operators	2,870
Paper Goods Machine Setters and Set-up Operators	1,590
Machine Feeders and Off Bearers	1,100
Hand Packers and Packagers	860
Assemblers and Fabricators-ex Machine,Electrical	820
Cutting and Slicing Machine Operators	820
First Line Supervisors-Production and Related	820
All Other Helpers, Laborers, Movers-Hand	750
Sales Representatives,ex Scientific and Related Prof.	670
All Other Professional,Paraprofessional,& Technical	610

PAPER AND ALLIED PRODUCTS
SIC - 26
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR%
ALL OCCUPATIONS	23090	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1410	6.11	N/A
FINANCIAL MANAGERS	110	0.48	11.97
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	100	0.43	18.09
PURCHASING MANAGERS	70	0.30	27.78
MARKETING, ADVERTISING AND RELATED MANAGERS	170	0.74	42.14
ADMINISTRATIVE SERVICE MANAGERS	40	0.17	45.84
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	140	0.61	49.84
INDUSTRIAL PRODUCTION MANAGERS	300	1.30	18.87
GENERAL MANAGERS AND TOP EXECUTIVES	400	1.73	21.36
ALL OTHER MANAGERS AND ADMINISTRATORS	80	0.35	23.02
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1450	6.27	N/A
ACCOUNTANTS AND AUDITORS	170	0.74	39.78
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	90	0.39	13.50
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	40	0.17	13.84
COST ESTIMATORS	80	0.35	30.91
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.13	20.28
COMPUTER ENGINEERS	10	0.04	46.23
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	130	0.56	14.11
MECHANICAL ENGINEERS	110	0.48	21.26
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.04	14.91
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	70	0.30	28.20
COMPUTER PROGRAMMER AIDES	10	0.04	0.00
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.04	31.53
DESIGNERS, EXCEPT INTERIOR DESIGNERS	80	0.35	23.74
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	610	2.64	73.58
SALES AND RELATED OCCUPATIONS	980	4.24	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	110	0.48	17.30
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	100	0.43	30.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	670	2.90	34.86
ALL OTHER SALES AND RELATED WORKERS	100	0.43	24.67
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2490	10.79	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	170	0.74	24.48

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPER AND ALLIED PRODUCTS
SIC - 26
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR%
ADJUSTMENT CLERKS	210	0.91	38.57
SECRETARIES	460	1.99	24.29
RECEPTIONISTS AND INFORMATION CLERKS	40	0.17	22.26
TYPISTS	20	0.09	19.92
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.04	41.65
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.09	26.45
FILE CLERKS	20	0.09	45.12
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	70	0.30	36.39
PROCUREMENT CLERKS	30	0.13	32.43
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	310	1.34	24.85
PAYROLL AND TIMEKEEPING CLERKS	60	0.26	18.23
BILLING, COST AND RATE CLERKS	50	0.22	27.04
GENERAL OFFICE CLERK	230	1.00	44.17
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	10	0.04	42.23
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.04	24.74
DATA ENTRY KEYERS, EXCEPT COMPOSING	50	0.22	28.73
SWITCHBOARD OPERATOR	60	0.26	14.81
PRODUCTION, PLANNING, EXPEDITING CLERKS	170	0.74	22.65
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	20	0.09	35.45
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	100	0.43	16.49
TRAFFIC, SHIPPING AND RECEIVING CLERKS	340	1.47	23.88
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	10	0.04	24.74
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	0.09	58.09
SERVICE OCCUPATIONS	220	0.95	N/A
GUARDS AND WATCH GUARDS	40	0.17	37.09
JANITORS AND CLEANERS	160	0.69	30.06
ALL OTHER SERVICE WORKERS	20	0.09	52.96
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	16540	71.64	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	820	3.55	6.04
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	40	0.17	21.13
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	40	0.17	30.70
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	250	1.08	25.61
MACHINERY MAINTENANCE MECHANICS, WATER OR POWER GENERAT	50	0.22	43.62
ALL OTHER MACHINERY MAINTENANCE MECHANICS	380	1.65	42.02
MACHINERY MAINTENANCE WORKERS	180	0.78	36.40
MAINTENANCE REPAIRERS, GENERAL UTILITY	420	1.82	12.51
CARPENTERS	60	0.26	42.08

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPER AND ALLIED PRODUCTS
SIC - 26
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR%
ELECTRICIANS	80	0.35	16.10
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	90	0.39	48.16
TOOL AND DIE MAKERS	50	0.22	28.66
MACHINISTS	200	0.87	45.84
CAMERA OPERATORS	10	0.04	48.02
ALL OTHER PRECISION WORKERS	340	1.47	56.23
PRINTING PRESS MACHINE SETTERS AND SET-UP OPERATORS	450	1.95	26.82
SPECIALTY MATERIALS PRINTING MACHINE SETTERS AND SET-UP	160	0.69	32.61
PRINTING PRESS MACHINE OPERATORS	510	2.21	32.41
BINDERY MACHINE OPERATORS	70	0.30	37.55
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATO	160	0.69	48.51
PAPER GOODS MACHINE SETTERS AND SET-UP OPERATORS	1590	6.89	21.19
BOILER OPERATORS AND TENDERS, LOW PRESSURE	70	0.30	15.37
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	20	0.09	13.33
CHEMICAL EQUIPMENT TENDERS	20	0.09	28.31
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	230	1.00	21.22
CUTTING AND SLICING MACHINE OPERATORS	820	3.55	32.51
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	130	0.56	34.69
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	140	0.61	29.82
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	320	1.39	29.69
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	20	0.09	23.32
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	190	0.82	8.10
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	170	0.74	37.51
ALL OTHER MACHINE SETTERS	280	1.21	41.81
ALL OTHER MACHINE OPERATORS	2870	12.43	47.36
WELDERS AND CUTTERS	10	0.04	45.17
CUTTERS AND TRIMMERS, HAND	70	0.30	40.14
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	820	3.55	25.30
ALL OTHER HAND WORKERS	250	1.08	31.29
STATIONARY ENGINEERS	90	0.39	30.07
TRUCK DRIVERS, HEAVY	220	0.95	20.69
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	80	0.35	33.50
ALL OTHER TRANSPORTATION WORKERS	10	0.04	52.70
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	510	2.21	22.02
CONVEYOR OPERATORS AND TENDERS	40	0.17	46.21
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	30	0.13	49.51
MECHANIC AND REPAIRER HELPERS	40	0.17	27.02
MACHINE FEEDERS AND OFFBEARERS	1100	4.77	37.72
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	430	1.86	23.78
HAND PACKERS AND PACKAGERS	860	3.73	30.93
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	750	3.25	19.43

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPER MILLS
SIC - 262
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR%
ALL OCCUPATIONS	5170	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	250	4.84	N/A
FINANCIAL MANAGERS	30	0.58	10.54
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.39	27.34
MARKETING, ADVERTISING AND RELATED MANAGERS	20	0.39	13.15
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.19	20.32
INDUSTRIAL PRODUCTION MANAGERS	40	0.77	20.69
GENERAL MANAGERS AND TOP EXECUTIVES	80	1.55	16.85
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.97	18.41
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	300	5.79	N/A
ACCOUNTANTS AND AUDITORS	50	0.97	3.14
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.39	12.29
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.19	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.19	17.67
MECHANICAL ENGINEERS	10	0.19	0.00
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	10	0.19	15.71
DRAFTERS	10	0.19	20.20
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.19	31.94
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	20	0.39	34.99
COMPUTER PROGRAMMER AIDES	10	0.19	0.00
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.19	15.71
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	130	2.52	57.23
SALES AND RELATED OCCUPATIONS	110	2.13	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.19	17.20
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.19	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	70	1.36	11.69
ALL OTHER SALES AND RELATED WORKERS	20	0.39	21.82
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	420	8.12	N/A
SECRETARIES	60	1.16	30.92
RECEPTIONISTS AND INFORMATION CLERKS	10	0.19	0.00
PROCUREMENT CLERKS	10	0.19	24.84
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	50	0.97	10.79
PAYROLL AND TIMEKEEPING CLERKS	20	0.39	32.47

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPER MILLS
SIC - 262
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR%
BILLING, COST AND RATE CLERKS	10	0.19	24.84
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.39	0.00
SWITCHBOARD OPERATOR	20	0.39	9.42
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.58	3.03
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.19	12.49
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.19	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	50	0.97	29.41
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	120	2.32	41.59
SERVICE OCCUPATIONS	60	1.16	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.19	20.20
GUARDS AND WATCH GUARDS	20	0.39	13.33
JANITORS AND CLEANERS	30	0.58	23.89
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4030	77.96	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	180	3.48	4.29
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.39	18.75
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	70	1.36	22.15
MACHINERY MAINTENANCE WORKERS	20	0.39	6.14
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.16	5.81
ELECTRICIANS	60	1.16	12.77
ALL OTHER PRECISION WORKERS	500	9.67	54.92
MACHINE FORM OPERATORS, METAL AND PLASTICS	30	0.58	13.55
PRINTING PRESS MACHINE SETTERS AND SET-UP OPERATORS	50	0.97	17.42
PAPER GOODS MACHINE SETTERS AND SET-UP OPERATORS	250	4.84	17.42
BOILER OPERATORS AND TENDERS, LOW PRESSURE	40	0.77	11.15
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	20	0.39	13.33
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	10	0.19	14.43
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	10	0.19	14.14
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	60	1.16	8.69
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	10	0.19	16.66
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	10	0.19	13.32
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	100	1.93	5.04
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	90	1.74	26.25
ALL OTHER MACHINE SETTERS	20	0.39	49.09
ALL OTHER MACHINE OPERATORS	1110	21.47	41.70
ALL OTHER HAND WORKERS	20	0.39	25.98

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPER MILLS
SIC - 262
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR%
STATIONARY ENGINEERS	90	1.74	29.45
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	30	0.58	26.83
ALL OTHER TRANSPORTATION WORKERS	20	0.39	54.08
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	180	3.48	22.27
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	30	0.58	60.08
MECHANIC AND REPAIRER HELPERS	10	0.19	19.24
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	130	2.52	30.19
HAND PACKERS AND PACKAGERS	130	2.52	18.71
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	670	12.96	45.06

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPERBOARD CONTAINERS AND BOXES
SIC - 265
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6300	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	390	6.19	N/A
FINANCIAL MANAGERS	40	0.63	9.74
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.32	16.38
PURCHASING MANAGERS	20	0.32	19.36
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.48	13.55
ADMINISTRATIVE SERVICE MANAGERS	10	0.16	28.28
INDUSTRIAL PRODUCTION MANAGERS	70	1.11	15.84
GENERAL MANAGERS AND TOP EXECUTIVES	150	2.38	20.68
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.79	53.99
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	170	2.70	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.16	37.79
COST ESTIMATORS	30	0.48	15.64
ALL OTHER ENGINEERS	10	0.16	19.99
DRAFTERS	10	0.16	34.64
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.63	18.84
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	70	1.11	62.24
SALES AND RELATED OCCUPATIONS	280	4.45	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	30	0.48	18.44
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	0.32	29.35
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	180	2.86	8.04
ALL OTHER SALES AND RELATED WORKERS	50	0.79	21.35
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	630	10.02	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	60	0.95	19.22
ADJUSTMENT CLERKS	80	1.27	18.41
SECRETARIES	50	0.79	18.19
RECEPTIONISTS AND INFORMATION CLERKS	20	0.32	21.20
TYPISTS	10	0.16	35.25
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.16	41.65
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.16	30.76
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	90	1.43	16.52
PAYROLL AND TIMEKEEPING CLERKS	30	0.48	14.90
BILLING, COST AND RATE CLERKS	30	0.48	21.25

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPERBOARD CONTAINERS AND BOXES
SIC - 265
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
GENERAL OFFICE CLERK	30	0.48	27.96
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	10	0.16	33.07
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.16	23.57
SWITCHBOARD OPERATOR	20	0.32	16.38
PRODUCTION, PLANNING, EXPEDITING CLERKS	50	0.79	12.40
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	20	0.32	20.61
TRAFFIC, SHIPPING AND RECEIVING CLERKS	90	1.43	18.74
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.16	44.09
SERVICE OCCUPATIONS	60	0.95	N/A
GUARDS AND WATCH GUARDS	10	0.16	30.76
JANITORS AND CLEANERS	40	0.63	18.89
ALL OTHER SERVICE WORKERS	10	0.16	88.19
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4770	75.69	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.32	17.43
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	200	3.17	8.00
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.32	21.21
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.16	45.17
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.32	49.63
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	0.63	28.19
MACHINERY MAINTENANCE MECHANICS, WATER OR POWER GENERAT	10	0.16	48.43
ALL OTHER MACHINERY MAINTENANCE MECHANICS	30	0.48	27.59
MACHINERY MAINTENANCE WORKERS	10	0.16	34.99
MAINTENANCE REPAIRERS, GENERAL UTILITY	130	2.06	14.62
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
CARPENTERS	40	0.63	41.51
ELECTRICIANS	10	0.16	28.28
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.16	40.82
TOOL AND DIE MAKERS	50	0.79	25.26
CAMERA OPERATORS	10	0.16	47.14
ALL OTHER PRECISION WORKERS	60	0.95	48.42
PRINTING PRESS MACHINE SETTERS AND SET-UP OPERATORS	100	1.59	34.21
SPECIALTY MATERIALS PRINTING MACHINE SETTERS AND SET-UP	90	1.43	35.82
ALL OTHER PRINTING RELATED SETTERS AND SET-UP OPERATORS	30	0.48	46.64
PRINTING PRESS MACHINE OPERATORS	190	3.01	17.17
PAPER GOODS MACHINE SETTERS AND SET-UP OPERATORS	670	10.63	13.91
BOILER OPERATORS AND TENDERS, LOW PRESSURE	30	0.47	18.04

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING,
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAPERBOARD CONTAINERS AND BOXES
SIC - 265
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	160	2.54	17.08
CUTTING AND SLICING MACHINE OPERATORS	240	3.81	17.46
COATING, PAINTING AND SPRAYING MACHINE OPERATORS AND TE	10	0.16	42.13
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	200	3.17	23.00
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	20	0.32	25.81
PACKAGING AND FILLING MACHINE OPERATORS	80	1.27	40.72
ALL OTHER MACHINE SETTERS	130	2.06	22.71
ALL OTHER MACHINE OPERATORS	220	3.49	47.60
CUTTERS AND TRIMMERS, HAND	60	0.95	35.81
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	520	8.25	30.63
ALL OTHER HAND WORKERS	120	1.90	31.30
TRUCK DRIVERS, HEAVY	150	2.38	14.87
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	40	0.63	30.23
ALL OTHER TRANSPORTATION WORKERS	10	0.16	52.70
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	150	2.38	17.83
CONVEYOR OPERATORS AND TENDERS	20	0.32	28.96
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.16	37.50
MECHANIC AND REPAIRER HELPERS	20	0.32	30.61
MACHINE FEEDERS AND OFFBEARERS	390	6.19	22.30
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	80	1.27	34.72
HAND PACKERS AND PACKAGERS	250	3.97	27.81
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	110	1.75	30.80

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING,
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS CONVERTED PAPER PRODUCTS
SIC - 267
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	10790	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	710	6.59	N/A
FINANCIAL MANAGERS	40	0.37	15.41
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	60	0.56	15.98
PURCHASING MANAGERS	40	0.37	28.94
INDUSTRIAL PRODUCTION MANAGERS	170	1.58	19.99
GENERAL MANAGERS AND TOP EXECUTIVES	150	1.39	25.02
ALL OTHER MANAGERS AND ADMINISTRATORS	250	2.32	51.26
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	980	9.07	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	50	0.46	9.25
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	30	0.28	15.85
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.18	20.38
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	120	1.11	11.64
MECHANICAL ENGINEERS	110	1.02	23.28
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.09	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	70	0.65	28.20
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	570	5.28	75.77
SALES AND RELATED OCCUPATIONS	550	5.10	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	60	0.56	16.13
ALL OTHER SALES AND RELATED WORKERS	490	4.54	48.85
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1360	12.59	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	70	0.65	17.51
SECRETARIES	330	3.06	24.96
RECEPTIONISTS AND INFORMATION CLERKS	20	0.18	31.91
TYPISTS	10	0.09	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.09	21.65
PAYROLL AND TIMEKEEPING CLERKS	10	0.09	16.66
SWITCHBOARD OPERATOR	20	0.18	17.60
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	60	0.56	18.26
TRAFFIC, SHIPPING AND RECEIVING CLERKS	190	1.76	25.84
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	640	5.93	44.51
SERVICE OCCUPATIONS	90	0.83	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS CONVERTED PAPER PRODUCTS
SIC - 267
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SERVICE WORKERS	90	0.83	47.39
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	7100	65.82	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.19	19.81
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	410	3.80	6.49
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.19	26.66
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	120	1.11	23.26
MILLWRIGHTS	20	0.19	30.55
MAINTENANCE REPAIRERS, GENERAL UTILITY	170	1.58	9.15
ELECTRICIANS	10	0.09	22.26
ALL OTHER PRECISION WORKERS	480	4.45	48.41
PRINTING PRESS MACHINE SETTERS AND SET-UP OPERATORS	300	2.78	25.92
SPECIALTY MATERIALS PRINTING MACHINE SETTERS AND SET-UP	70	0.65	28.96
PRINTING PRESS MACHINE OPERATORS	200	1.85	30.21
PAPER GOODS MACHINE SETTERS AND SET-UP OPERATORS	670	6.21	29.86
CUTTING AND SLICING MACHINE OPERATORS	400	3.71	25.79
ALL OTHER MACHINE SETTERS	270	2.50	49.53
ALL OTHER MACHINE OPERATORS	2020	18.72	55.04
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	290	2.69	16.03
ALL OTHER HAND WORKERS	110	1.02	37.25
ALL OTHER PLANT AND SYSTEM OPERATORS	**	N/A	N/A
TRUCK DRIVERS, HEAVY	50	0.46	25.17
ALL OTHER TRANSPORTATION WORKERS	20	0.19	46.89
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	140	1.30	27.91
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.09	53.74
MECHANIC AND REPAIRER HELPERS	10	0.09	28.28
MACHINE FEEDERS AND OFFBEARERS	210	1.95	21.25
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	190	1.76	15.82
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	890	8.25	27.25

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N/A NOT AVAILABLE.

PRINTING AND PUBLISHING
(SIC 27)

Industry Description

Establishments in this industry are engaged in printing by one or more common processes, such as letterpress; lithography(including offset), gravure, or screen, and those establishments which perform services for the printing trade, such as bookbinding and platemaking. Also included are establishments engaged in publishing books, newspaper and periodicals.

Employment Trends

This industry showed a slight gain in employment since the 1986 survey , up 800 jobs or 1.5 percent. In contrast, the nondurable goods sector as a whole, lost 16,000 jobs or 7.9 percent over the same time period.

Occupational Structure

Production and maintenance occupations account for 43.4 percent of the industry's employment and 39.2 percent of the employment represented by the ten largest occupations.

TOP TEN OCCUPATIONS

Occupation	Jobs
General Managers and Top Executives	2,310
Offset Lithographic Press Setters	2,130
Writers and Editors	2,020
Reporters and Correspondents	1,740
Printing Press Machine Operators	1,730
Hand Packers and Packagers	1,730
Sales Agents, Advertising	1,640
Sales Representatives,ex Scientific and Related	1,570
Bookkeeping, Accounting, Auditing Clerks	1,310
Bindery Machine Setters and Set-up Operators	1,230

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OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	54730	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	5270	9.64	N/A
FINANCIAL MANAGERS	320	0.59	10.15
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	140	0.26	15.87
PURCHASING MANAGERS	140	0.26	19.51
MARKETING, ADVERTISING AND RELATED MANAGERS	950	1.74	16.64
ADMINISTRATIVE SERVICE MANAGERS	190	0.35	12.43
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	280	0.51	6.03
INDUSTRIAL PRODUCTION MANAGERS	500	0.91	19.99
GENERAL MANAGERS AND TOP EXECUTIVES	2310	4.22	12.12
ALL OTHER MANAGERS AND ADMINISTRATORS	440	0.80	15.73
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	8390	15.33	N/A
ACCOUNTANTS AND AUDITORS	270	0.49	13.42
ALL OTHER FINANCIAL SPECIALISTS	110	0.20	13.54
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	120	0.22	12.40
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	130	0.24	5.30
COST ESTIMATORS	270	0.49	17.11
ALL OTHER MANAGEMENT SUPPORT WORKERS	330	0.60	11.26
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	40	0.07	14.77
MECHANICAL ENGINEERS	40	0.07	22.53
ALL OTHER ENGINEERS	150	0.27	0.68
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.02	11.55
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.04	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	60	0.11	35.06
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	460	0.84	6.21
COMPUTER PROGRAMMERS	260	0.48	12.18
COMPUTER PROGRAMMER AIDES	130	0.24	25.04
ALL OTHER COMPUTER SCIENTISTS	80	0.15	35.72
LIBRARIANS, PROFESSIONAL	70	0.13	25.68
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.02	0.00
WRITERS AND EDITORS	2020	3.69	14.37
PUBLIC RELATIONS SPECIALISTS AND PUBLICITY WRITERS	100	0.18	6.56
REPORTERS AND CORRESPONDENTS	1740	3.18	6.48
PHOTOGRAPHERS	300	0.55	15.18
ARTISTS AND RELATED WORKERS	880	1.61	21.75
DESIGNERS, EXCEPT INTERIOR DESIGNERS	90	0.16	21.64
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	700	1.28	35.01

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OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SALES AND RELATED OCCUPATIONS	4950	9.05	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	680	1.24	19.66
SALES AGENTS, ADVERTISING	1640	3.00	17.03
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	330	0.60	48.56
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	1570	2.87	18.90
CASHIERS	20	0.04	15.79
NEWS AND STREET VENDORS, PHONE SOLICITORS, DOOR-TO-DOOR	420	0.77	25.79
ALL OTHER SALES AND RELATED WORKERS	290	0.53	34.15
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	11600	21.20	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	730	1.33	20.61
ADJUSTMENT CLERKS	900	1.64	11.79
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	150	0.27	30.17
ADVERTISING CLERKS	590	1.08	14.82
PROOFREADERS AND COPY MARKERS	520	0.95	15.28
SECRETARIES	1210	2.21	17.51
STENOGRAPHERS	10	0.02	18.18
RECEPTIONISTS AND INFORMATION CLERKS	430	0.79	29.10
TYPISTS	240	0.44	37.35
TYPISTS, WORD PROCESSING EQUIPMENT	320	0.59	33.78
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	50	0.09	22.66
FILE CLERKS	70	0.13	35.58
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	580	1.06	27.50
PROCUREMENT CLERKS	30	0.05	17.66
STATISTICAL CLERKS	20	0.04	35.99
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	1310	2.39	14.63
PAYROLL AND TIMEKEEPING CLERKS	120	0.22	15.49
BILLING, COST AND RATE CLERKS	210	0.38	17.13
GENERAL OFFICE CLERK	1070	1.96	17.59
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	50	0.09	30.71
DUPLICATING MACHINE OPERATORS	50	0.09	34.21
MAIL MACHINE OPERATORS, PREPARING AND HANDLING	140	0.26	44.14
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	200	0.37	15.95
DATA ENTRY KEYERS, EXCEPT COMPOSING	330	0.60	23.16
DATA ENTRY KEYERS, COMPOSING	240	0.44	38.31
SWITCHBOARD OPERATOR	220	0.40	17.05
MAIL CLERKS, EXCEPT MACHINE OPERATORS AND POST OFFICE	190	0.35	19.49
MESSENGERS	210	0.38	25.69

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OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	50	0.09	17.81
PRODUCTION, PLANNING, EXPEDITING CLERKS	360	0.66	19.92
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	20	0.04	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	310	0.57	21.96
TRAFFIC, SHIPPING AND RECEIVING CLERKS	610	1.12	14.35
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	30	0.05	34.44
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	0.05	46.75
SERVICE OCCUPATIONS	760	1.39	N/A
FIRST LINE SUPERVISORS - SERVICE	80	0.15	38.94
GUARDS AND WATCH GUARDS	70	0.13	10.23
JANITORS AND CLEANERS	500	0.91	20.40
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	110	0.20	7.29
ALL OTHER SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	23760	43.39	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	40	0.07	20.57
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	950	1.74	13.86
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	80	0.15	43.82
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	30	0.05	29.06
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.02	11.78
PRECISION INSPECTORS, TESTERS, AND GRADERS	50	0.09	4.25
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	270	0.49	27.17
MACHINERY MAINTENANCE MECHANICS	150	0.27	19.64
MACHINERY MAINTENANCE WORKERS	20	0.04	42.58
MAINTENANCE REPAIRERS, GENERAL UTILITY	170	0.31	21.12
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	30	0.05	47.03
CARPENTERS	10	0.02	30.35
ELECTRICIANS	60	0.11	14.81
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.02	12.50
MACHINISTS	90	0.16	18.99
ALL OTHER PRECISION METAL WORKERS	20	0.04	26.09
PRECISION COMPOSITORS AND OTHERS	280	0.51	37.61
JOB PRINTERS	400	0.73	45.69
PASTE-UP WORKERS	1190	2.17	14.72
ELECTRONIC PAGINATION SYSTEM OPERATORS	230	0.42	36.55
PHOTOENGRAVERS	170	0.31	21.11
CAMERA OPERATORS	420	0.77	18.83
SCANNER OPERATORS	80	0.15	35.74

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N/A NOT AVAILABLE.

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OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
STRIPPERS	930	1.70	17.14
PLATEMAKERS	350	0.64	19.48
ALL OTHER LITHOGRAPHY AND PHOTOENGRAVING WORKERS	30	0.05	30.45
BOOKBINDERS	110	0.20	31.18
ALL OTHER PRECISION PRINTING WORKERS	130	0.24	26.18
ALL OTHER PRECISION WORKERS	30	0.05	82.13
OFFSET LITHOGRAPHIC PRESS SETTERS	2130	3.89	15.27
LETTERPRESS SETTERS AND SET-UP OPERATORS	890	1.63	18.81
ALL OTHER PRINTING PRESS SETTERS AND SET-UP OPERATORS	270	0.49	41.03
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	230	0.42	39.96
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	1230	2.25	25.59
TYPESETTING AND COMPOSING MACHINE OPERATORS AND TENDERS	840	1.54	18.96
PRINTING PRESS MACHINE OPERATORS	1730	3.16	19.08
PHOTOENGRAVING AND LITHOGRAPHING MACHINE OPERATORS AND	120	0.22	44.35
BINDERY MACHINE OPERATORS	920	1.68	22.24
PHOTOGRAPHIC PROCESS MACHINE OPERATORS	10	0.02	43.10
PAPER GOODS MACHINE SETTERS AND SET-UP OPERATORS	30	0.05	19.57
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	120	0.22	36.55
CUTTING AND SLICING MACHINE OPERATORS	300	0.55	29.59
PACKAGING AND FILLING MACHINE OPERATORS	190	0.35	11.59
ALL OTHER MACHINE SETTERS	130	0.24	39.83
ALL OTHER MACHINE OPERATORS	860	1.57	57.44
CUTTERS AND TRIMMERS, HAND	90	0.16	41.66
HAND ENGRAVING AND PRINTING WORKERS	40	0.07	49.98
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	1000	1.83	28.72
ALL OTHER HAND WORKERS	150	0.27	39.34
TRUCK DRIVERS, HEAVY	80	0.15	29.80
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	690	1.26	22.19
DRIVER/SALES WORKERS	1030	1.88	18.45
ALL OTHER TRANSPORTATION WORKERS	30	0.06	30.25
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	130	0.24	17.23
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	50	0.09	56.05
MECHANIC AND REPAIRER HELPERS	90	0.16	12.24
MACHINE FEEDERS AND OFFBEARERS	900	1.64	31.04
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	560	1.02	18.93
HAND PACKERS AND PACKAGERS	1730	3.16	18.39
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	850	1.55	25.26

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NEWSPAPERS
SIC - 271
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	16450	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	850	5.17	N/A
FINANCIAL MANAGERS	50	0.30	9.25
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	30	0.18	16.17
MARKETING, ADVERTISING AND RELATED MANAGERS	260	1.58	14.64
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	50	0.30	0.00
INDUSTRIAL PRODUCTION MANAGERS	60	0.37	24.99
GENERAL MANAGERS AND TOP EXECUTIVES	330	2.01	17.22
ALL OTHER MANAGERS AND ADMINISTRATORS	70	0.43	40.42
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	3490	21.21	N/A
ACCOUNTANTS AND AUDITORS	20	0.12	24.89
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	34.64
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.06	17.67
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.06	14.14
ALL OTHER ENGINEERS	**	N/A	N/A
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	70	0.43	4.41
COMPUTER PROGRAMMERS	20	0.12	0.00
COMPUTER PROGRAMMER AIDES	20	0.12	18.76
LIBRARIANS, PROFESSIONAL	30	0.18	14.56
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.06	0.00
WRITERS AND EDITORS	1020	6.20	8.58
TECHNICAL WRITERS	60	0.37	0.00
PUBLIC RELATIONS SPECIALISTS AND PUBLICITY WRITERS	20	0.12	13.15
REPORTERS AND CORRESPONDENTS	1620	9.85	5.42
PHOTOGRAPHERS	250	1.52	10.81
ARTISTS AND RELATED WORKERS	240	1.46	16.22
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.24	12.08
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	40	0.24	30.33
SALES AND RELATED OCCUPATIONS	1620	9.84	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	220	1.34	22.49
SALES AGENTS, ADVERTISING	790	4.80	17.51
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	160	0.97	14.19
CASHIERS	20	0.12	16.58
NEWS AND STREET VENDORS, PHONE SOLICITORS, DOOR-TO-DOOR	260	1.58	15.06

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NEWSPAPERS
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OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SALES AND RELATED WORKERS	170	1.03	62.43
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	3340	20.31	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	180	1.09	19.92
ADJUSTMENT CLERKS	330	2.01	9.60
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	90	0.55	49.35
ADVERTISING CLERKS	480	2.92	9.64
PROOFREADERS AND COPY MARKERS	140	0.85	21.82
SECRETARIES	160	0.97	6.29
RECEPTIONISTS AND INFORMATION CLERKS	90	0.55	38.13
TYPISTS	130	0.79	36.39
TYPISTS, WORD PROCESSING EQUIPMENT	160	0.97	31.26
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.06	8.33
FILE CLERKS	10	0.06	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	80	0.49	7.61
PROCUREMENT CLERKS	10	0.06	0.00
STATISTICAL CLERKS	10	0.06	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	260	1.58	12.68
PAYROLL AND TIMEKEEPING CLERKS	20	0.12	16.53
BILLING, COST AND RATE CLERKS	80	0.49	25.74
GENERAL OFFICE CLERK	470	2.86	12.22
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	70	0.43	18.57
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.24	21.67
SWITCHBOARD OPERATOR	120	0.73	21.78
MAIL CLERKS, EXCEPT MACHINE OPERATORS AND POST OFFICE	30	0.18	19.23
MESSENGERS	100	0.61	7.25
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	20	0.12	22.27
PRODUCTION, PLANNING, EXPEDITING CLERKS	60	0.37	42.52
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.06	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.06	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	0.18	25.75
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	10	0.06	0.00
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	130	0.79	63.15
SERVICE OCCUPATIONS	380	2.32	N/A
FIRST LINE SUPERVISORS - SERVICE	30	0.18	6.18
GUARDS AND WATCH GUARDS	60	0.37	7.98
JANITORS AND CLEANERS	200	1.22	9.92
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	90	0.55	2.87

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OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	6770	41.15	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.06	19.99
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	190	1.16	16.27
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	50	0.30	49.47
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.06	15.71
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.06	14.14
MACHINERY MAINTENANCE MECHANICS	70	0.43	12.98
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.18	22.30
ELECTRICIANS	20	0.12	5.89
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.06	0.00
MACHINISTS	40	0.24	0.00
PASTE-UP WORKERS	760	4.62	10.05
ELECTRONIC PAGINATION SYSTEM OPERATORS	60	0.37	30.11
PHOTOENGRAVERS	80	0.49	16.80
CAMERA OPERATORS	80	0.49	17.82
SCANNER OPERATORS	10	0.06	38.56
PLATEMAKERS	50	0.30	34.48
ALL OTHER LITHOGRAPHY AND PHOTOENGRAVING WORKERS	10	0.06	0.00
ALL OTHER PRECISION PRINTING WORKERS	150	0.91	34.50
ALL OTHER PRECISION WORKERS	10	0.06	83.66
OFFSET LITHOGRAPHIC PRESS SETTERS	270	1.64	23.88
LETTERPRESS SETTERS AND SET-UP OPERATORS	520	3.16	7.27
TYPESETTING AND COMPOSING MACHINE OPERATORS AND TENDERS	210	1.28	16.43
PRINTING PRESS MACHINE OPERATORS	180	1.09	23.00
PHOTOENGRAVING AND LITHOGRAPHING MACHINE OPERATORS AND	30	0.18	0.00
BINDERY MACHINE OPERATORS	50	0.30	49.17
PAPER GOODS MACHINE SETTERS AND SET-UP OPERATORS	20	0.12	0.00
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	10	0.06	0.00
PACKAGING AND FILLING MACHINE OPERATORS	80	0.49	0.00
ALL OTHER MACHINE OPERATORS	250	1.52	54.85
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	440	2.68	20.62
DRIVER/SALES WORKERS	960	5.84	16.62
ALL OTHER TRANSPORTATION WORKERS	40	0.24	37.93
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	40	0.24	3.36
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.06	63.08
MACHINE FEEDERS AND OFFBEARERS	180	1.09	28.71
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	190	1.16	1.86
HAND PACKERS AND PACKAGERS	1180	7.17	12.28
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	460	2.80	31.12

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PERIODICALS
SIC - 272
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	4910	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	880	17.92	N/A
FINANCIAL MANAGERS	30	0.61	5.41
PURCHASING MANAGERS	20	0.41	4.99
MARKETING, ADVERTISING AND RELATED MANAGERS	170	3.46	12.35
ADMINISTRATIVE SERVICE MANAGERS	120	2.44	0.82
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	80	1.63	1.26
INDUSTRIAL PRODUCTION MANAGERS	80	1.63	12.41
GENERAL MANAGERS AND TOP EXECUTIVES	320	6.52	10.31
ALL OTHER MANAGERS AND ADMINISTRATORS	60	1.22	15.14
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1540	31.37	N/A
ACCOUNTANTS AND AUDITORS	70	1.43	0.00
ALL OTHER FINANCIAL SPECIALISTS	20	0.41	8.69
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.41	0.00
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	30	0.61	3.70
COST ESTIMATORS	20	0.41	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	140	2.85	8.33
ALL OTHER ENGINEERS	10	0.20	0.00
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.20	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	90	1.83	0.00
COMPUTER PROGRAMMERS	110	2.24	6.11
COMPUTER PROGRAMMER AIDES	30	0.61	0.00
ALL OTHER COMPUTER SCIENTISTS	40	0.81	0.00
WRITERS AND EDITORS	370	7.54	15.98
TECHNICAL WRITERS	20	0.41	26.80
PUBLIC RELATIONS SPECIALISTS AND PUBLICITY WRITERS	20	0.41	0.00
REPORTERS AND CORRESPONDENTS	110	2.24	19.45
ARTISTS AND RELATED WORKERS	100	2.04	15.11
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.20	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	320	6.52	12.33
SALES AND RELATED OCCUPATIONS	680	13.84	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	110	2.24	14.34
SALES AGENTS, ADVERTISING	220	4.48	24.99
SALES ENGINEERS	30	0.61	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	200	4.07	31.42

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PERIODICALS
SIC - 272
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SALES AND RELATED WORKERS	120	2.44	39.87
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1260	25.66	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	140	2.85	13.06
ADJUSTMENT CLERKS	60	1.22	0.00
PROOFREADERS AND COPY MARKERS	70	1.43	21.26
SECRETARIES	230	4.68	10.62
RECEPTIONISTS AND INFORMATION CLERKS	80	1.63	20.65
TYPISTS, WORD PROCESSING EQUIPMENT	40	0.81	32.88
FILE CLERKS	10	0.20	9.09
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	60	1.22	28.31
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	130	2.65	9.72
BILLING, COST AND RATE CLERKS	10	0.20	18.89
GENERAL OFFICE CLERK	60	1.22	28.20
DUPLICATING MACHINE OPERATORS	10	0.20	0.00
MAIL MACHINE OPERATORS, PREPARING AND HANDLING	40	0.81	34.59
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	40	0.82	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.41	0.00
DATA ENTRY KEYERS, COMPOSING	20	0.41	33.39
SWITCHBOARD OPERATOR	30	0.61	9.58
MAIL CLERKS, EXCEPT MACHINE OPERATORS AND POST OFFICE	70	1.43	17.55
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.41	17.67
TRAFFIC, SHIPPING AND RECEIVING CLERKS	20	0.41	20.83
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	100	2.04	38.56
SERVICE OCCUPATIONS	40	0.82	N/A
JANITORS AND CLEANERS	40	0.82	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	510	10.39	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	60	1.22	23.14
PRECISION COMPOSITORS AND OTHERS	50	1.02	28.94
PASTE-UP WORKERS	50	1.02	27.49
CAMERA OPERATORS	20	0.41	24.20
ALL OTHER PRECISION WORKERS	120	2.44	58.70
OFFSET LITHOGRAPHIC PRESS SETTERS	40	0.82	25.64
ALL OTHER MACHINE OPERATORS	130	2.65	55.65
ALL OTHER TRANSPORTATION WORKERS	10	0.20	48.73
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	30	0.61	66.35

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BOOKS
SIC - 273
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6350	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	880	13.84	N/A
FINANCIAL MANAGERS	70	1.10	9.55
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.31	10.64
PURCHASING MANAGERS	10	0.16	14.28
MARKETING, ADVERTISING AND RELATED MANAGERS	190	2.99	16.84
ADMINISTRATIVE SERVICE MANAGERS	20	0.31	26.67
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	0.47	28.44
INDUSTRIAL PRODUCTION MANAGERS	50	0.79	33.65
GENERAL MANAGERS AND TOP EXECUTIVES	260	4.09	25.13
ALL OTHER MANAGERS AND ADMINISTRATORS	230	3.62	11.97
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1170	18.42	N/A
ACCOUNTANTS AND AUDITORS	70	1.10	21.66
ALL OTHER FINANCIAL SPECIALISTS	20	0.31	15.05
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.16	25.00
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	20	0.31	7.21
COST ESTIMATORS	20	0.31	40.40
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.16	31.94
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	120	1.89	9.79
COMPUTER PROGRAMMERS	50	0.79	15.71
COMPUTER PROGRAMMER AIDES	10	0.16	30.00
WRITERS AND EDITORS	520	8.19	19.20
TECHNICAL WRITERS	50	0.79	38.34
PUBLIC RELATIONS SPECIALISTS AND PUBLICITY WRITERS	10	0.16	36.36
PHOTOGRAPHERS	10	0.16	23.57
ARTISTS AND RELATED WORKERS	130	2.05	29.30
DESIGNERS, EXCEPT INTERIOR DESIGNERS	20	0.31	42.43
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	100	1.57	68.90
SALES AND RELATED OCCUPATIONS	360	5.68	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	50	0.79	30.50
SALES AGENTS, ADVERTISING	10	0.16	28.28
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	200	3.15	27.32
NEWS AND STREET VENDORS, PHONE SOLICITORS, DOOR-TO-DOOR	60	0.95	46.46
ALL OTHER SALES AND RELATED WORKERS	40	0.63	40.15

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N/A NOT AVAILABLE.

BOOKS
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OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1800	28.36	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	90	1.42	22.05
ADJUSTMENT CLERKS	90	1.42	35.27
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	10	0.16	28.28
PROOFREADERS AND COPY MARKERS	10	0.16	38.18
SECRETARIES	440	6.93	22.53
RECEPTIONISTS AND INFORMATION CLERKS	50	0.79	30.46
TYPISTS	40	0.63	36.95
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.16	49.99
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.31	24.20
FILE CLERKS	30	0.47	49.85
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	180	2.84	26.53
PROCUREMENT CLERKS	10	0.16	37.79
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	210	3.31	15.32
PAYROLL AND TIMEKEEPING CLERKS	20	0.31	15.71
BILLING, COST AND RATE CLERKS	10	0.16	42.85
GENERAL OFFICE CLERK	130	2.05	25.39
DUPLICATING MACHINE OPERATORS	10	0.16	21.65
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	40	0.63	28.32
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.47	39.89
SWITCHBOARD OPERATOR	20	0.31	12.49
MAIL CLERKS, EXCEPT MACHINE OPERATORS AND POST OFFICE	20	0.31	15.59
MESSENGERS	10	0.16	34.64
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.47	14.99
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	130	2.05	26.56
TRAFFIC, SHIPPING AND RECEIVING CLERKS	110	1.73	21.65
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	50	0.79	64.16
SERVICE OCCUPATIONS	100	1.58	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.16	27.21
JANITORS AND CLEANERS	70	1.10	46.72
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.16	33.07
ALL OTHER SERVICE WORKERS	10	0.16	50.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2040	32.12	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.16	26.45
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	80	1.26	14.11
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.16	37.26

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BOOKS
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OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.16	23.57
MACHINERY MAINTENANCE MECHANICS	20	0.31	46.62
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	0.79	25.99
ELECTRICIANS	10	0.16	28.78
PASTE-UP WORKERS	30	0.47	42.18
CAMERA OPERATORS	40	0.63	20.83
STRIPPERS	140	2.21	27.23
PLATEMAKERS	30	0.47	25.12
ALL OTHER LITHOGRAPHY AND PHOTOENGRAVING WORKERS	**	N/A	N/A
ALL OTHER PRECISION WORKERS	70	1.10	70.76
OFFSET LITHOGRAPHIC PRESS SETTERS	120	1.89	22.89
LETTERPRESS SETTERS AND SET-UP OPERATORS	30	0.47	43.34
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	260	4.09	27.82
TYPESETTING AND COMPOSING MACHINE OPERATORS AND TENDERS	20	0.31	35.13
PRINTING PRESS MACHINE OPERATORS	110	1.73	27.83
BINDERY MACHINE OPERATORS	90	1.42	33.92
ALL OTHER MACHINE SETTERS	10	0.16	68.71
ALL OTHER MACHINE OPERATORS	100	1.58	56.36
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	30	0.47	37.22
ALL OTHER HAND WORKERS	10	0.16	68.71
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	30	0.47	46.30
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	0.79	31.99
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	0.31	51.63
MACHINE FEEDERS AND OFFBEARERS	310	4.88	35.26
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	30	0.47	43.18
HAND PACKERS AND PACKAGERS	150	2.36	43.10
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	170	2.68	22.58

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N/A NOT AVAILABLE.

MISCELLANEOUS PUBLISHING
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OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3820	100.00	0.00
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	560	14.67	N/A
FINANCIAL MANAGERS	40	1.05	6.36
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.53	6.64
PURCHASING MANAGERS	20	0.53	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	60	1.57	32.19
ADMINISTRATIVE SERVICE MANAGERS	20	0.52	18.64
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	70	1.83	3.83
INDUSTRIAL PRODUCTION MANAGERS	40	1.05	14.86
GENERAL MANAGERS AND TOP EXECUTIVES	230	6.02	5.47
ALL OTHER MANAGERS AND ADMINISTRATORS	60	1.57	14.30
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	940	24.60	N/A
ACCOUNTANTS AND AUDITORS	50	1.31	14.87
ALL OTHER FINANCIAL SPECIALISTS	50	1.31	13.93
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	0.79	4.00
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	20	0.52	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	150	3.93	5.55
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.26	0.00
MECHANICAL ENGINEERS	10	0.26	12.99
ALL OTHER ENGINEERS	120	3.14	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.53	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.52	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	140	3.67	6.72
COMPUTER PROGRAMMERS	20	0.52	38.47
LIBRARIANS, PROFESSIONAL	10	0.26	41.57
WRITERS AND EDITORS	80	2.09	40.51
TECHNICAL WRITERS	10	0.26	14.81
PUBLIC RELATIONS SPECIALISTS AND PUBLICITY WRITERS	20	0.52	0.00
ARTISTS AND RELATED WORKERS	70	1.83	48.66
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.26	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	100	2.62	53.13
SALES AND RELATED OCCUPATIONS	780	20.43	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	140	3.67	2.10
SALES AGENTS, ADVERTISING	470	12.30	10.88
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	30	0.79	32.02

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

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OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	50	1.31	37.79
ALL OTHER SALES AND RELATED WORKERS	90	2.36	26.89
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1000	26.16	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	60	1.57	18.39
ADJUSTMENT CLERKS	70	1.83	4.25
LIBRARY ASSISTANTS AND BOOKMOBILE DRIVERS	50	1.31	0.00
ADVERTISING CLERKS	10	0.26	32.94
PROOFREADERS AND COPY MARKERS	40	1.05	12.99
SECRETARIES	50	1.31	23.83
RECEPTIONISTS AND INFORMATION CLERKS	30	0.79	29.42
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	40	1.05	44.02
PROCUREMENT CLERKS	10	0.26	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	90	2.36	19.46
PAYROLL AND TIMEKEEPING CLERKS	20	0.52	22.83
BILLING, COST AND RATE CLERKS	20	0.52	32.80
GENERAL OFFICE CLERK	80	2.09	21.23
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	20	0.52	0.00
DUPLICATING MACHINE OPERATORS	10	0.26	49.13
MAIL MACHINE OPERATORS, PREPARING AND HANDLING	10	0.26	23.29
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.52	0.00
SWITCHBOARD OPERATOR	10	0.26	0.00
MAIL CLERKS, EXCEPT MACHINE OPERATORS AND POST OFFICE	50	1.31	22.62
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	10	0.26	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	50	1.31	6.07
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.26	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	60	1.57	16.65
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	180	4.71	60.32
SERVICE OCCUPATIONS	20	0.52	N/A
GUARDS AND WATCH GUARDS	10	0.26	0.00
JANITORS AND CLEANERS	10	0.26	46.25
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	520	13.62	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	10	0.26	14.73
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.26	0.00
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	10	0.26	0.00

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

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OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE MECHANICS	10	0.26	18.36
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.26	11.57
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
CAMERA OPERATORS	10	0.26	44.99
PLATEMAKERS	10	0.26	20.67
BOOKBINDERS	10	0.26	0.00
ALL OTHER PRECISION WORKERS	40	1.05	77.36
OFFSET LITHOGRAPHIC PRESS SETTERS	60	1.57	19.09
TYPESETTING AND COMPOSING MACHINE OPERATORS AND TENDERS	10	0.26	47.73
PRINTING PRESS MACHINE OPERATORS	20	0.52	18.34
BINDERY MACHINE OPERATORS	70	1.83	44.51
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATOR	100	2.62	37.03
ALL OTHER MACHINE OPERATORS	**	N/A	N/A
CUTTERS AND TRIMMERS, HAND	20	0.53	0.00
TRUCK DRIVERS, HEAVY	30	0.79	0.00
ALL OTHER TRANSPORTATION WORKERS	20	0.53	73.46
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.53	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	10	0.26	0.00
HAND PACKERS AND PACKAGERS	40	1.05	15.76
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	**	N/A	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

COMMERCIAL PRINTING
SIC - 275
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	16660	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1680	10.08	N/A
FINANCIAL MANAGERS	100	0.60	15.93
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	30	0.18	14.42
PURCHASING MANAGERS	50	0.30	13.28
MARKETING, ADVERTISING AND RELATED MANAGERS	220	1.32	19.55
ADMINISTRATIVE SERVICE MANAGERS	20	0.12	35.35
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	40	0.24	10.89
INDUSTRIAL PRODUCTION MANAGERS	200	1.20	20.90
GENERAL MANAGERS AND TOP EXECUTIVES	950	5.70	9.98
ALL OTHER MANAGERS AND ADMINISTRATORS	70	0.42	34.84
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1000	6.00	N/A
ACCOUNTANTS AND AUDITORS	30	0.18	20.00
ALL OTHER FINANCIAL SPECIALISTS	10	0.06	14.28
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	0.18	16.59
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	40	0.24	6.61
COST ESTIMATORS	180	1.08	16.37
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.12	44.87
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.06	18.63
MECHANICAL ENGINEERS	10	0.06	33.33
ALL OTHER ENGINEERS	**	N/A	N/A
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.06	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	40	0.24	15.38
COMPUTER PROGRAMMERS	40	0.24	21.31
COMPUTER PROGRAMMER AIDES	20	0.12	25.98
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
PUBLIC RELATIONS SPECIALISTS AND PUBLICITY WRITERS	30	0.18	0.00
PHOTOGRAPHERS	30	0.18	40.40
ARTISTS AND RELATED WORKERS	290	1.74	22.22
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICIAL	210	1.26	83.54
SALES AND RELATED OCCUPATIONS	1210	7.27	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	130	0.78	35.34
SALES AGENTS, ADVERTISING	110	0.66	23.05
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	150	0.90	43.90
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	760	4.57	13.94

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

COMMERCIAL PRINTING
SIC - 275
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SALES AND RELATED WORKERS	60	0.36	45.25
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2940	17.64	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	190	1.14	24.60
ADJUSTMENT CLERKS	250	1.50	11.64
ADVERTISING CLERKS	20	0.12	46.77
PROOFREADERS AND COPY MARKERS	90	0.54	19.75
SECRETARIES	290	1.74	21.00
RECEPTIONISTS AND INFORMATION CLERKS	140	0.84	33.83
TYPISTS	30	0.18	33.70
TYPISTS, WORD PROCESSING EQUIPMENT	40	0.24	43.77
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.06	30.61
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	170	1.02	39.63
PROCUREMENT CLERKS	10	0.06	35.35
STATISTICAL CLERKS	10	0.06	44.72
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	470	2.82	14.49
PAYROLL AND TIMEKEEPING CLERKS	40	0.24	10.19
BILLING, COST AND RATE CLERKS	70	0.42	7.53
GENERAL OFFICE CLERK	260	1.56	21.14
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	10	0.06	40.06
MAIL MACHINE OPERATORS, PREPARING AND HANDLING	10	0.06	20.20
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.12	28.28
DATA ENTRY KEYERS, EXCEPT COMPOSING	100	0.60	8.93
DATA ENTRY KEYERS, COMPOSING	40	0.24	40.54
SWITCHBOARD OPERATOR	30	0.18	12.83
PRODUCTION, PLANNING, EXPEDITING CLERKS	140	0.84	21.82
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	110	0.66	23.81
TRAFFIC, SHIPPING AND RECEIVING CLERKS	270	1.62	11.85
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	120	0.72	55.46
SERVICE OCCUPATIONS	150	0.90	N/A
JANITORS AND CLEANERS	150	0.90	22.94
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	9680	58.11	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.06	33.07
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	440	2.64	13.56
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.06	28.74

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

COMMERCIAL PRINTING
SIC - 275
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.06	49.69
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.12	9.99
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	190	1.14	36.65
MACHINERY MAINTENANCE MECHANICS	20	0.12	24.20
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.18	25.89
MACHINISTS	10	0.06	31.94
PRECISION COMPOSITORS AND OTHERS	140	0.84	32.18
JOB PRINTERS	340	2.04	47.61
PASTE-UP WORKERS	220	1.32	22.47
ELECTRONIC PAGINATION SYSTEM OPERATORS	80	0.48	27.91
PHOTOENGRAVERS	60	0.36	30.44
CAMERA OPERATORS	230	1.38	18.07
SCANNER OPERATORS	50	0.30	28.58
STRIPPERS	650	3.91	10.70
PLATEMAKERS	220	1.32	14.56
ALL OTHER LITHOGRAPHY AND PHOTOENGRAVING WORKERS	20	0.12	46.48
ALL OTHER PRECISION WORKERS	80	0.48	73.99
OFFSET LITHOGRAPHIC PRESS SETTERS	1530	9.19	13.62
LETTERPRESS SETTERS AND SET-UP OPERATORS	250	1.50	26.34
ALL OTHER PRINTING PRESS SETTERS AND SET-UP OPERATORS	180	1.08	35.78
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	190	1.14	41.08
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	540	3.24	20.68
TYPESETTING AND COMPOSING MACHINE OPERATORS AND TENDERS	280	1.68	28.20
PRINTING PRESS MACHINE OPERATORS	1290	7.75	18.78
BINDERY MACHINE OPERATORS	420	2.52	17.65
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	60	0.36	44.97
CUTTING AND SLICING MACHINE OPERATORS	220	1.32	25.36
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	30	0.18	43.07
PACKAGING AND FILLING MACHINE OPERATORS	60	0.36	36.47
ALL OTHER MACHINE SETTERS	20	0.12	61.03
ALL OTHER MACHINE OPERATORS	270	1.62	83.32
HAND ENGRAVING AND PRINTING WORKERS	40	0.24	49.98
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	290	1.74	37.28
ALL OTHER HAND WORKERS	200	1.20	46.66
TRUCK DRIVERS, HEAVY	30	0.18	30.09
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	180	1.08	21.57
DRIVER/SALES WORKERS	50	0.30	44.64
ALL OTHER TRANSPORTATION WORKERS	10	0.06	67.49
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.06	34.40
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.06	71.07

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

COMMERCIAL PRINTING
SIC - 275
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE FEEDERS AND OFFBEARERS	200	1.20	31.40
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	220	1.32	33.15
HAND PACKERS AND PACKAGERS	190	1.14	36.32
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	80	0.48	37.48

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BLANKBOOKS AND BOOKBINDING
SIC - 278
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3800	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	190	4.99	N/A
FINANCIAL MANAGERS	10	0.26	13.33
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.26	18.18
PURCHASING MANAGERS	10	0.26	17.63
MARKETING, ADVERTISING AND RELATED MANAGERS	20	0.53	18.75
ADMINISTRATIVE SERVICE MANAGERS	10	0.26	48.41
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.26	15.74
INDUSTRIAL PRODUCTION MANAGERS	50	1.32	21.69
GENERAL MANAGERS AND TOP EXECUTIVES	70	1.84	16.23
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	120	3.15	N/A
ACCOUNTANTS AND AUDITORS	20	0.53	19.04
ALL OTHER FINANCIAL SPECIALISTS	10	0.26	34.64
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.26	37.41
COST ESTIMATORS	20	0.53	23.52
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.26	21.65
MECHANICAL ENGINEERS	10	0.26	18.18
ALL OTHER ENGINEERS	10	0.26	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.26	21.65
ARTISTS AND RELATED WORKERS	10	0.27	37.41
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.26	60.09
SALES AND RELATED OCCUPATIONS	150	3.95	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	20	0.53	14.40
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	120	3.16	21.26
ALL OTHER SALES AND RELATED WORKERS	10	0.26	0.00
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	490	12.90	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	40	1.05	45.34
ADJUSTMENT CLERKS	50	1.32	17.90
PROOFREADERS AND COPY MARKERS	10	0.26	20.35
SECRETARIES	30	0.79	26.92
RECEPTIONISTS AND INFORMATION CLERKS	20	0.53	15.74

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BLANKBOOKS AND BOOKBINDING
SIC - 278
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
TYPISTS	10	0.26	22.22
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.26	37.26
FILE CLERKS	10	0.26	44.72
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.26	24.49
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	50	1.32	15.06
PAYROLL AND TIMEKEEPING CLERKS	30	0.79	25.22
BILLING, COST AND RATE CLERKS	10	0.26	33.33
GENERAL OFFICE CLERK	20	0.53	9.72
MAIL MACHINE OPERATORS, PREPARING AND HANDLING	10	0.26	44.44
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.26	24.74
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.53	17.43
SWITCHBOARD OPERATOR	10	0.27	27.21
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	10	0.27	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.79	19.72
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.26	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	30	0.79	13.36
TRAFFIC, SHIPPING AND RECEIVING CLERKS	50	1.32	13.59
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.26	40.72
SERVICE OCCUPATIONS	70	1.84	N/A
JANITORS AND CLEANERS	40	1.05	18.02
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.26	24.74
ALL OTHER SERVICE WORKERS	20	0.53	70.21
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2780	73.17	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.27	28.86
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	100	2.63	11.50
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.26	16.66
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	30	0.79	12.47
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.79	18.48
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	30	0.79	43.93
CARPENTERS	10	0.26	34.64
ELECTRICIANS	10	0.26	17.32
MACHINISTS	40	1.05	40.73
ALL OTHER PRECISION METAL WORKERS	20	0.53	12.50
ELECTRONIC PAGINATION SYSTEM OPERATORS	10	0.26	0.00
STRIPPERS	10	0.27	32.77
PLATEMAKERS	10	0.27	35.20
BOOKBINDERS	40	1.05	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BLANKBOOKS AND BOOKBINDING
SIC - 278
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION PRINTING WORKERS	20	0.53	45.08
ALL OTHER PRECISION WORKERS	10	0.26	73.19
LETTERPRESS SETTERS AND SET-UP OPERATORS	20	0.53	46.64
ALL OTHER PRINTING PRESS SETTERS AND SET-UP OPERATORS	30	0.79	49.07
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	40	1.05	37.37
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	300	7.90	16.67
PRINTING PRESS MACHINE OPERATORS	30	0.79	17.92
BINDERY MACHINE OPERATORS	200	5.26	17.65
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	40	1.05	34.71
CUTTING AND SLICING MACHINE OPERATORS	30	0.79	16.31
PACKAGING AND FILLING MACHINE OPERATORS	40	1.05	0.00
ALL OTHER MACHINE SETTERS	60	1.58	78.21
ALL OTHER MACHINE OPERATORS	370	9.74	58.96
CUTTERS AND TRIMMERS, HAND	10	0.26	0.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	680	17.90	24.68
ALL OTHER HAND WORKERS	**	N/A	N/A
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.26	17.32
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.27	74.83
MECHANIC AND REPAIRER HELPERS	70	1.84	2.37
MACHINE FEEDERS AND OFFBEARERS	180	4.74	21.51
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	70	1.84	16.45
HAND PACKERS AND PACKAGERS	70	1.84	27.35
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	130	3.42	8.57

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PRINTING TRADE SERVICES
SIC - 279
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1810	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	190	10.49	N/A
FINANCIAL MANAGERS	10	0.55	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	30	1.66	11.11
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.55	0.00
INDUSTRIAL PRODUCTION MANAGERS	20	1.10	7.44
GENERAL MANAGERS AND TOP EXECUTIVES	120	6.63	4.31
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	120	6.61	N/A
ACCOUNTANTS AND AUDITORS	10	0.55	0.00
COST ESTIMATORS	10	0.55	0.00
MECHANICAL ENGINEERS	10	0.55	0.00
ALL OTHER ENGINEERS	20	1.10	5.55
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.55	0.00
COMPUTER PROGRAMMERS	20	1.10	10.82
WRITERS AND EDITORS	10	0.55	0.00
ARTISTS AND RELATED WORKERS	30	1.66	12.85
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	**	N/A	N/A
SALES AND RELATED OCCUPATIONS	100	5.52	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.55	0.00
SALES AGENTS, ADVERTISING	30	1.66	12.75
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.55	9.09
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	50	2.76	6.14
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	530	29.28	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	1.10	7.87
ADJUSTMENT CLERKS	20	1.10	0.00
PROOFREADERS AND COPY MARKERS	150	8.29	3.35
SECRETARIES	20	1.10	9.62
RECEPTIONISTS AND INFORMATION CLERKS	20	1.10	9.62
TYPISTS, WORD PROCESSING EQUIPMENT	40	2.21	15.04
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	20	1.11	19.50
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	60	3.32	5.87
BILLING, COST AND RATE CLERKS	10	0.55	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PRINTING TRADE SERVICES
SIC - 279
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
GENERAL OFFICE CLERK	20	1.11	15.30
DATA ENTRY KEYERS, COMPOSING	90	4.97	10.19
MESSENGERS	20	1.11	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	1.66	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	10	0.55	0.00
SERVICE OCCUPATIONS	10	0.55	N/A
JANITORS AND CLEANERS	10	0.55	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	860	47.55	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	40	2.21	2.49
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	2.21	0.00
MACHINERY MAINTENANCE MECHANICS	20	1.11	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.55	0.00
PRECISION COMPOSITORS AND OTHERS	20	1.11	21.82
PASTE-UP WORKERS	90	4.97	7.67
ELECTRONIC PAGINATION SYSTEM OPERATORS	20	1.11	25.71
PHOTOENGRAVERS	20	1.11	7.44
CAMERA OPERATORS	30	1.66	8.28
STRIPPERS	30	1.66	15.98
PLATEMAKERS	10	0.55	14.14
ALL OTHER LITHOGRAPHY AND PHOTOENGRAVING WORKERS	**	N/A	N/A
ALL OTHER PRECISION PRINTING WORKERS	10	0.55	0.00
OFFSET LITHOGRAPHIC PRESS SETTERS	20	1.11	0.00
LETTERPRESS SETTERS AND SET-UP OPERATORS	10	0.55	0.00
BINDERY MACHINE SETTERS AND SET-UP OPERATORS	10	0.55	0.00
TYPESETTING AND COMPOSING MACHINE OPERATORS AND TENDERS	260	14.37	4.50
PRINTING PRESS MACHINE OPERATORS	10	0.55	6.66
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	20	1.11	0.00
ALL OTHER MACHINE SETTERS	60	3.32	0.00
ALL OTHER MACHINE OPERATORS	**	N/A	N/A
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	1.11	0.00
DRIVER/SALES WORKERS	10	0.55	17.32
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.55	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	10	0.55	12.49
HAND PACKERS AND PACKAGERS	60	3.32	2.98
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	20	1.11	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CHEMICALS AND ALLIED PRODUCTS
(SIC 28)

Industry Description

Establishments in this industry produce basic chemicals or manufacture products by predominantly chemical processes. Establishments are classified in three general classes of products:(1) basic chemicals, such as acids, alkalies, salt, and organic chemicals;(2) chemical products to be used in further manufacturing, such as synthetic fibers, plastic materials, dry colors, and pigments; and (3) finished chemical products to be used for ultimate consumption, such as drugs, cosmetics, and soaps; or to be used as materials or supplies in other industries.

Employment Trends

This industry grew by 1,200 jobs or nearly 7.0 percent between 1986 and 1989 reaching a 1989 level of 18,400 jobs.

Occupational Structure

Chemical technicians and technologists, except health, comprise the largest single occupation in this industry with 1,090 jobs. The largest major occupational category was production, construction, maintenance and related with 8,180 jobs or 43.9 percent. Within this category, the occupational cluster of all other helpers, laborers, movers is the largest with 940 jobs or 11.5 percent of the category.

TOP TEN OCCUPATION

Occupation	Jobs
Chemical Technicians and Technologists,ex Health	1,090
All Other Helpers, Laborers, Movers- Hand	940
Chemists,except Biochemists	750
Secretaries	630
Hand Packers and Packagers	600
All Other Professional, Paraprofessional,& Tech.	570
General Managers and Top Executives	530
Chemical Plant and System Operators	520
All Other Precision Workers	500
Chemical Equipment Controllers and Operators	500
Freight,Stock and Material Handlers, Hand	500

CHEMICALS AND ALLIED PRODUCTS
SIC - 28
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	18630	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	2270	12.21	N/A
FINANCIAL MANAGERS	170	0.91	8.41
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	100	0.54	14.02
PURCHASING MANAGERS	70	0.38	13.04
MARKETING, ADVERTISING AND RELATED MANAGERS	450	2.42	9.50
ADMINISTRATIVE SERVICE MANAGERS	20	0.11	19.71
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	330	1.77	22.23
INDUSTRIAL PRODUCTION MANAGERS	340	1.83	12.92
GENERAL MANAGERS AND TOP EXECUTIVES	530	2.85	11.69
ALL OTHER MANAGERS AND ADMINISTRATORS	260	1.40	27.49
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	4100	22.00	N/A
ACCOUNTANTS AND AUDITORS	280	1.50	9.85
BUDGET ANALYSTS	20	0.11	15.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	120	0.64	20.32
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	50	0.27	26.02
ALL OTHER MANAGEMENT SUPPORT WORKERS	150	0.81	31.99
CHEMICAL ENGINEERS	390	2.09	25.41
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.16	32.48
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	40	0.21	8.50
SAFETY ENGINEERS, EXCEPT MINING	20	0.11	15.31
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	80	0.43	13.84
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.05	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	40	0.21	5.00
CHEMISTS, EXCEPT BIOCHEMISTS	750	4.03	12.85
ALL OTHER PHYSICAL SCIENTISTS	20	0.11	0.00
BIOLOGICAL, AGRICULTURAL AND FOOD TECHNICIANS AND TECH	80	0.43	24.10
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	1090	5.85	13.28
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	**	N/A	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	130	0.70	12.37
COMPUTER PROGRAMMER AIDES	30	0.16	25.88
ALL OTHER COMPUTER SCIENTISTS	60	0.32	33.72
LAWYERS	30	0.16	32.29
REGISTERED NURSES	20	0.11	9.80
ALL OTHER HEALTH PROFESSIONALS, AND OTHERS	90	0.48	2.72
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	570	3.06	56.13

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CHEMICALS AND ALLIED PRODUCTS
SIC - 28
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SALES AND RELATED OCCUPATIONS	1150	6.16	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	170	0.91	17.46
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	280	1.50	28.72
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	310	1.66	28.32
ALL OTHER SALES AND RELATED WORKERS	390	2.09	16.52
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2620	14.05	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	150	0.81	24.91
SECRETARIES	630	3.38	15.54
STENOGRAPHERS	10	0.05	12.86
RECEPTIONISTS AND INFORMATION CLERKS	30	0.16	26.23
TYPISTS	40	0.21	32.90
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	40	0.21	7.07
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	200	1.07	14.44
PROCUREMENT CLERKS	40	0.21	17.73
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	320	1.72	15.81
PAYROLL AND TIMEKEEPING CLERKS	30	0.16	14.24
BILLING, COST AND RATE CLERKS	40	0.21	16.75
GENERAL OFFICE CLERK	230	1.24	24.55
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	50	0.27	11.24
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.16	20.39
ALL OTHER OFFICE MACHINE OPERATORS	10	0.05	0.00
SWITCHBOARD OPERATOR	50	0.27	18.99
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	150	0.81	32.85
TRAFFIC, SHIPPING AND RECEIVING CLERKS	280	1.50	20.84
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	100	0.54	34.48
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	190	1.02	39.00
SERVICE OCCUPATIONS	300	1.60	N/A
FIRST LINE SUPERVISORS - SERVICE	60	0.32	23.22
GUARDS AND WATCH GUARDS	60	0.32	16.39
JANITORS AND CLEANERS	120	0.64	14.70
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	20	0.11	0.00
ALL OTHER SERVICE WORKERS	40	0.21	37.86
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	10	0.05	N/A
ALL OTHER AGRICULTURAL, FORESTRY AND RELATED WORKERS	10	0.05	65.61

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CHEMICALS AND ALLIED PRODUCTS
SIC - 28
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	8180	43.93	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	70	0.38	8.55
FIRST LINE SUPERVISORS - CONSTRUCTION AND RELATED	20	0.11	34.64
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	450	2.42	15.16
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	40	0.21	17.50
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	40	0.22	29.42
ALL OTHER PRODUCTION WORKER SUPERVISORS	140	0.75	10.76
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.05	18.57
MACHINERY MAINTENANCE MECHANICS, WATER OR POWER GENERAT	100	0.54	12.09
ALL OTHER MACHINERY MAINTENANCE MECHANICS	300	1.61	26.67
MACHINERY MAINTENANCE WORKERS	40	0.22	27.76
MAINTENANCE REPAIRERS, GENERAL UTILITY	220	1.18	25.91
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	20	0.11	16.33
PRECISION INSTRUMENT REPAIRERS	20	0.11	0.00
CARPENTERS	20	0.11	26.30
ELECTRICIANS	160	0.86	16.51
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.05	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	40	0.22	26.89
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	10	0.05	31.94
MACHINISTS	70	0.38	13.32
ALL OTHER PRECISION METAL WORKERS	10	0.05	30.05
ALL OTHER PRECISION WORKERS	500	2.68	29.26
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	10	0.05	33.33
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	30	0.16	29.45
EXTRUDING AND FORMING MACHINE OPERATORS AND TENDERS	10	0.05	0.00
BOILER OPERATORS AND TENDERS, LOW PRESSURE	50	0.27	17.20
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	500	2.68	33.90
CHEMICAL EQUIPMENT TENDERS	340	1.83	29.06
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	10	0.05	27.73
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	30	0.16	24.96
SEPARATING, FILTERING, CLARIFYING, PRECIPITATING AND ST	40	0.22	21.36
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	470	2.52	30.44
PACKAGING AND FILLING MACHINE OPERATORS	400	2.15	27.75
ALL OTHER MACHINE SETTERS	260	1.40	24.73
ALL OTHER MACHINE OPERATORS	430	2.31	46.52
WELDERS AND CUTTERS	40	0.22	20.03
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	60	0.32	14.97
ALL OTHER HAND WORKERS	20	0.11	20.33
CHEMICAL PLANT AND SYSTEM OPERATORS	520	2.79	7.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CHEMICALS AND ALLIED PRODUCTS
SIC - 28
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PLANT AND SYSTEM OPERATORS	110	0.59	52.90
ALL OTHER TRANSPORTATION WORKERS	260	1.40	40.38
TANK CAR AND TRUCK LOADERS	10	0.05	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	70	0.38	19.67
CONVEYOR OPERATORS AND TENDERS	10	0.05	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.05	81.44
MECHANIC AND REPAIRER HELPERS	10	0.05	22.36
MACHINE FEEDERS AND OFFBEARERS	150	0.81	31.64
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	500	2.68	17.06
HAND PACKERS AND PACKAGERS	600	3.22	34.95
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	940	5.05	57.23

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

INDUSTRIAL INORGANIC CHEMICALS
SIC - 281
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1170	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	130	11.09	N/A
FINANCIAL MANAGERS	20	1.71	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.85	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.85	16.66
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	2.56	3.57
INDUSTRIAL PRODUCTION MANAGERS	10	0.85	11.54
GENERAL MANAGERS AND TOP EXECUTIVES	30	2.56	27.19
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.71	51.63
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	150	12.81	N/A
ACCOUNTANTS AND AUDITORS	10	0.85	18.18
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.85	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
CHEMICAL ENGINEERS	30	2.56	12.83
MECHANICAL ENGINEERS	10	0.85	33.33
ALL OTHER ENGINEERS	**	N/A	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	60	5.13	8.33
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	10	0.85	17.20
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.86	0.00
COMPUTER PROGRAMMERS	10	0.86	0.00
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
SALES AND RELATED OCCUPATIONS	90	7.70	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.86	13.32
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	60	5.13	10.40
ALL OTHER SALES AND RELATED WORKERS	20	1.71	57.63
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	140	11.98	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.86	24.84
SECRETARIES	30	2.56	5.76
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.86	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	2.56	22.33
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	10	0.86	0.00
PAYROLL AND TIMEKEEPING CLERKS	10	0.86	0.00
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	40	3.42	47.05

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

INDUSTRIAL INORGANIC CHEMICALS
SIC - 281
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	10	0.86	N/A
ALL OTHER SERVICE WORKERS	10	0.86	37.79
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	650	55.56	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	40	3.42	15.94
MACHINERY MAINTENANCE MECHANICS, WATER OR POWER GENERAT	20	1.71	0.00
MACHINERY MAINTENANCE WORKERS	30	2.56	34.70
ELECTRICIANS	30	2.56	25.39
ALL OTHER PRECISION WORKERS	90	7.69	68.72
FURNACE, KILN, OVEN, DRIER OR KETTLE OPERATORS AND TEND	10	0.86	28.28
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.86	0.00
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	140	11.97	28.13
SEPARATING, FILTERING, CLARIFYING, PRECIPITATING AND ST	30	2.56	32.86
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	10	0.86	31.42
ALL OTHER MACHINE OPERATORS	70	5.98	73.80
ALL OTHER HAND WORKERS	**	N/A	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	60	5.13	52.41
ALL OTHER TRANSPORTATION WORKERS	50	4.27	45.81
HAND PACKERS AND PACKAGERS	40	3.42	34.65
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	20	1.71	33.27

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PLASTICS MATERIALS AND SYNTHETICS
SIC - 282
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	4920	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	780	15.85	N/A
FINANCIAL MANAGERS	80	1.63	6.20
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	40	0.81	4.33
PURCHASING MANAGERS	30	0.61	5.23
MARKETING, ADVERTISING AND RELATED MANAGERS	260	5.29	3.15
ADMINISTRATIVE SERVICE MANAGERS	10	0.20	14.28
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	70	1.42	5.81
INDUSTRIAL PRODUCTION MANAGERS	70	1.42	9.06
GENERAL MANAGERS AND TOP EXECUTIVES	120	2.44	14.54
ALL OTHER MANAGERS AND ADMINISTRATORS	100	2.03	8.89
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1240	25.21	N/A
ACCOUNTANTS AND AUDITORS	130	2.64	6.25
BUDGET ANALYSTS	10	0.20	27.27
ALL OTHER FINANCIAL SPECIALISTS	10	0.20	16.66
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.41	25.64
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.20	14.28
COMPLIANCE OFFICERS, ENFORCEMENT INSPECTORS, EX CONSTR	10	0.20	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.20	0.00
CHEMICAL ENGINEERS	170	3.46	2.41
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.20	33.33
COMPUTER ENGINEERS	10	0.20	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.20	30.15
MECHANICAL ENGINEERS	40	0.81	39.99
ALL OTHER ENGINEERS	10	0.21	30.76
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	10	0.21	22.22
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.21	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.21	39.99
DRAFTERS	10	0.21	40.55
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.20	16.66
CHEMISTS, EXCEPT BIOCHEMISTS	200	4.07	3.38
ALL OTHER PHYSICAL SCIENTISTS	10	0.20	0.00
ALL OTHER LIFE SCIENTISTS	20	0.41	0.00
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	380	7.73	5.07
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	60	1.22	4.19
COMPUTER PROGRAMMERS	10	0.20	34.01
COMPUTER PROGRAMMER AIDES	10	0.20	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PLASTICS MATERIALS AND SYNTHETICS
SIC - 282
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
LAWYERS	20	0.41	0.00
REGISTERED NURSES	10	0.20	0.00
ALL OTHER HEALTH PROFESSIONALS, AND OTHERS	10	0.20	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.20	60.00
SALES AND RELATED OCCUPATIONS	370	7.53	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	60	1.22	6.13
SALES ENGINEERS	20	0.41	40.00
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	0.41	24.29
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	20	0.41	41.47
ALL OTHER SALES AND RELATED WORKERS	250	5.08	2.96
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	550	11.15	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	50	1.02	11.41
ADJUSTMENT CLERKS	30	0.61	9.42
SECRETARIES	210	4.27	3.22
STENOGRAPHERS	10	0.20	0.00
TYPISTS	10	0.20	44.72
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.20	17.67
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	40	0.81	21.82
PAYROLL AND TIMEKEEPING CLERKS	10	0.20	33.33
GENERAL OFFICE CLERK	50	1.02	17.39
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.20	30.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.20	19.99
ALL OTHER OFFICE MACHINE OPERATORS	10	0.20	0.00
SWITCHBOARD OPERATOR	10	0.20	12.85
MAIL CLERKS, EXCEPT MACHINE OPERATORS AND POST OFFICE	10	0.20	11.11
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.20	49.48
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.20	25.71
TRAFFIC, SHIPPING AND RECEIVING CLERKS	50	1.02	18.58
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.20	47.54
SERVICE OCCUPATIONS	80	1.63	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.41	28.64
GUARDS AND WATCH GUARDS	10	0.20	0.00
JANITORS AND CLEANERS	30	0.61	13.47
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	20	0.41	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PLASTICS MATERIALS AND SYNTHETICS
SIC - 282
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1900	38.63	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	90	1.83	10.94
ALL OTHER PRODUCTION WORKER SUPERVISORS	120	2.44	4.74
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	0.81	33.07
MAINTENANCE REPAIRERS, GENERAL UTILITY	70	1.42	21.99
ELECTRICIANS	70	1.42	4.58
ALL OTHER PRECISION WORKERS	170	3.46	15.68
BOILER OPERATORS AND TENDERS, LOW PRESSURE	30	0.61	27.18
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	150	3.05	37.85
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	80	1.63	44.50
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	130	2.64	33.78
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE SET	110	2.24	44.75
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	80	1.63	41.38
ALL OTHER MACHINE SETTERS	100	2.03	0.00
ALL OTHER MACHINE OPERATORS	160	3.25	58.28
ALL OTHER HAND WORKERS	10	0.20	57.14
CHEMICAL PLANT AND SYSTEM OPERATORS	390	7.93	0.00
TRUCK DRIVERS, HEAVY	20	0.41	20.39
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	30	0.61	21.63
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	**	N/A	N/A
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	20	0.41	48.41
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	30	0.61	69.56

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

DRUGS
SIC - 283
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3320	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	480	14.46	N/A
FINANCIAL MANAGERS	20	0.60	24.49
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.60	13.15
PURCHASING MANAGERS	10	0.30	27.73
MARKETING, ADVERTISING AND RELATED MANAGERS	80	2.41	13.38
ADMINISTRATIVE SERVICE MANAGERS	10	0.30	22.22
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	130	3.92	17.99
INDUSTRIAL PRODUCTION MANAGERS	60	1.81	24.87
GENERAL MANAGERS AND TOP EXECUTIVES	100	3.01	13.00
ALL OTHER MANAGERS AND ADMINISTRATORS	50	1.51	11.90
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1190	35.85	N/A
ACCOUNTANTS AND AUDITORS	30	0.91	19.56
ALL OTHER FINANCIAL SPECIALISTS	10	0.30	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.30	22.26
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.30	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.30	0.00
COMPUTER ENGINEERS	10	0.30	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.30	0.00
MECHANICAL ENGINEERS	10	0.30	0.00
ALL OTHER ENGINEERS	60	1.81	44.36
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	30	0.91	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.60	0.00
DRAFTERS	10	0.30	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.30	0.00
CHEMISTS, EXCEPT BIOCHEMISTS	230	6.93	9.21
ALL OTHER PHYSICAL SCIENTISTS	**	N/A	N/A
BIOLOGICAL, AGRICULTURAL AND FOOD TECHNICIANS AND TECH	80	2.41	24.69
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	350	10.54	17.96
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	30	0.91	7.69
COMPUTER PROGRAMMERS	10	0.30	9.42
COMPUTER PROGRAMMER AIDES	10	0.30	0.00
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
ALL OTHER HEALTH PROFESSIONALS, AND OTHERS	70	2.11	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	180	5.42	56.01
SALES AND RELATED OCCUPATIONS	120	3.61	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

DRUGS
SIC - 283
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.30	10.87
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	80	2.41	19.44
ALL OTHER SALES AND RELATED WORKERS	30	0.90	18.60
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	540	16.25	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.30	39.44
ADJUSTMENT CLERKS	10	0.30	23.07
SECRETARIES	110	3.31	10.52
RECEPTIONISTS AND INFORMATION CLERKS	20	0.60	11.54
TYPISTS	10	0.30	27.63
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.30	40.82
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.30	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	70	2.11	6.66
PROCUREMENT CLERKS	10	0.30	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	60	1.81	14.17
PAYROLL AND TIMEKEEPING CLERKS	10	0.30	23.57
BILLING, COST AND RATE CLERKS	20	0.60	7.85
GENERAL OFFICE CLERK	40	1.21	35.79
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.60	7.87
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.30	0.00
SWITCHBOARD OPERATOR	10	0.30	38.56
MAIL CLERKS, EXCEPT MACHINE OPERATORS AND POST OFFICE	10	0.30	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.60	24.20
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	30	0.90	25.61
TRAFFIC, SHIPPING AND RECEIVING CLERKS	50	1.51	17.17
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	80	2.41	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.30	10.10
JANITORS AND CLEANERS	40	1.21	11.06
ALL OTHER SERVICE WORKERS	30	0.90	9.42
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	910	27.42	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	70	2.11	22.06
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.30	23.57
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	70	2.11	45.46
ALL OTHER MACHINERY MAINTENANCE MECHANICS	40	1.21	40.20

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

DRUGS
SIC - 283
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.90	20.72
CARPENTERS	10	0.30	15.71
ELECTRICIANS	10	0.30	0.00
MACHINISTS	50	1.51	2.88
ALL OTHER PRECISION METAL WORKERS	**	N/A	N/A
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	10	0.30	0.00
ALL OTHER MACHINE OPERATORS	70	2.11	77.51
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	40	1.21	0.00
ALL OTHER HAND WORKERS	10	0.30	0.00
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.30	71.74
ALL OTHER TRANSPORTATION WORKERS	70	2.11	63.39
HAND PACKERS AND PACKAGERS	400	12.05	36.39
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.30	77.13

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SOAP, CLEANERS AND TOILET GOODS
SIC - 284
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3010	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	320	10.65	N/A
FINANCIAL MANAGERS	20	0.67	6.73
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.67	10.10
PURCHASING MANAGERS	10	0.33	10.87
MARKETING, ADVERTISING AND RELATED MANAGERS	20	0.67	27.27
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	1.00	4.16
INDUSTRIAL PRODUCTION MANAGERS	90	2.99	7.61
GENERAL MANAGERS AND TOP EXECUTIVES	90	2.99	9.07
ALL OTHER MANAGERS AND ADMINISTRATORS	40	1.33	0.00
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	330	10.97	N/A
ACCOUNTANTS AND AUDITORS	50	1.66	3.39
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	1.00	21.41
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.33	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	1.99	0.00
CHEMICAL ENGINEERS	20	0.67	18.42
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.33	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	20	0.67	0.00
MECHANICAL ENGINEERS	10	0.33	23.57
ALL OTHER ENGINEERS	**	N/A	N/A
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.67	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.33	0.00
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	40	1.33	14.63
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.33	0.00
REGISTERED NURSES	10	0.33	0.00
ALL OTHER HEALTH PROFESSIONALS, AND OTHERS	**	N/A	N/A
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	30	1.00	40.27
SALES AND RELATED OCCUPATIONS	180	5.98	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	20	0.67	15.81
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	110	3.65	30.82
ALL OTHER SALES AND RELATED WORKERS	50	1.66	59.96
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	440	14.63	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SOAP, CLEANERS AND TOILET GOODS
SIC - 284
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	30	1.00	24.62
SECRETARIES	80	2.66	16.02
STENOGRAPHERS	10	0.33	0.00
TYPISTS	10	0.33	17.67
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.33	23.57
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	1.00	16.10
PROCUREMENT CLERKS	10	0.33	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	80	2.66	14.27
BILLING, COST AND RATE CLERKS	10	0.33	14.14
GENERAL OFFICE CLERK	50	1.66	22.34
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.33	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	30	1.00	18.33
TRAFFIC, SHIPPING AND RECEIVING CLERKS	40	1.33	26.51
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	20	0.67	15.71
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	0.67	12.30
SERVICE OCCUPATIONS	50	1.66	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.33	0.00
GUARDS AND WATCH GUARDS	10	0.33	0.00
JANITORS AND CLEANERS	30	1.00	22.62
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1690	56.11	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	50	1.66	5.65
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	100	3.32	15.11
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.67	6.14
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	30	1.00	29.62
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.33	0.00
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	100	3.32	21.92
MACHINERY MAINTENANCE MECHANICS, WATER OR POWER GENERAT	70	2.33	14.48
ALL OTHER MACHINERY MAINTENANCE MECHANICS	180	5.98	9.18
MILLWRIGHTS	10	0.33	23.57
MACHINERY MAINTENANCE WORKERS	10	0.33	0.00
PRECISION INSTRUMENT REPAIRERS	10	0.33	0.00
ELECTRICIANS	20	0.67	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.33	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
ALL OTHER PRECISION WORKERS	20	0.66	62.14
EXTRUDING AND FORMING MACHINE OPERATORS AND TENDERS	10	0.33	0.00
PACKAGING AND FILLING MACHINE OPERATORS	140	4.65	18.28

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SOAP, CLEANERS AND TOILET GOODS
SIC - 284
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MACHINE SETTERS	10	0.33	0.00
ALL OTHER MACHINE OPERATORS	180	5.98	40.58
WELDERS AND CUTTERS	10	0.33	0.00
CHEMICAL PLANT AND SYSTEM OPERATORS	60	1.99	0.00
STATIONARY ENGINEERS	10	0.33	0.00
ALL OTHER PLANT AND SYSTEM OPERATORS	**	N/A	N/A
TRUCK DRIVERS, HEAVY	10	0.33	17.67
ALL OTHER TRANSPORTATION WORKERS	20	0.66	36.05
TANK CAR AND TRUCK LOADERS	10	0.33	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.66	0.00
CONVEYOR OPERATORS AND TENDERS	10	0.33	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	370	12.29	3.02
HAND PACKERS AND PACKAGERS	100	3.32	15.87
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	90	2.99	41.63

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAINTS AND ALLIED PRODUCTS
SIC - 285
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1560	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	110	7.05	N/A
FINANCIAL MANAGERS	10	0.64	25.00
MARKETING, ADVERTISING AND RELATED MANAGERS	20	1.28	24.95
INDUSTRIAL PRODUCTION MANAGERS	30	1.92	10.17
GENERAL MANAGERS AND TOP EXECUTIVES	40	2.57	9.58
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.64	37.49
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	160	10.26	N/A
ACCOUNTANTS AND AUDITORS	10	0.64	14.28
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.64	17.67
CHEMICAL ENGINEERS	10	0.64	20.20
ALL OTHER ENGINEERS	**	N/A	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	60	3.85	14.51
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH A	60	3.85	10.76
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	**	N/A	N/A
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.64	39.02
SALES AND RELATED OCCUPATIONS	190	12.19	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	40	2.57	31.09
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	1.28	33.33
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	90	5.77	15.07
ALL OTHER SALES AND RELATED WORKERS	40	2.57	54.96
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	340	21.80	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.64	22.22
SECRETARIES	30	1.92	14.39
RECEPTIONISTS AND INFORMATION CLERKS	10	0.64	20.20
ORDER CLERKS- MATERIAL, MERCHANDISE AND SERVICE	30	1.92	19.23
PROCUREMENT CLERKS	10	0.64	24.74
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	40	2.57	17.48
GENERAL OFFICE CLERK	40	2.57	24.15
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.64	19.99
SWITCHBOARD OPERATOR	10	0.64	31.94
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.64	19.99
TRAFFIC, SHIPPING AND RECEIVING CLERKS	40	2.57	19.02

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PAINTS AND ALLIED PRODUCTS
SIC - 285
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	100	6.41	45.68
SERVICE OCCUPATIONS	20	1.28	N/A
JANITORS AND CLEANERS	10	0.64	15.97
ALL OTHER SERVICE WORKERS	10	0.64	52.70
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	740	47.42	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	40	2.57	8.41
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.64	31.94
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	30	1.92	25.51
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	1.92	24.62
ALL OTHER PRECISION WORKERS	20	1.28	48.33
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	40	2.56	22.54
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	10	0.64	32.77
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	130	8.33	25.87
PACKAGING AND FILLING MACHINE OPERATORS	100	6.41	21.86
ALL OTHER MACHINE SETTERS	20	1.28	32.75
ALL OTHER MACHINE OPERATORS	50	3.21	53.22
ALL OTHER HAND WORKERS	10	0.64	53.24
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.64	48.98
TRUCK DRIVERS, HEAVY	20	1.28	19.76
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.64	31.42
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	1.28	31.49
HAND PACKERS AND PACKAGERS	20	1.28	30.12
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	170	10.90	47.70

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PETROLEUM AND COAL PRODUCTS
(SIC 29)

Industry Description

This major group includes establishments that are primarily engaged in refining petroleum, manufacturing roofing and paving materials, and compounding lubricating oils and greases from purchased materials.

Employment Trends

The concentration of employment in this industry in Massachusetts differs from that of the nation. Nationally petroleum refining and miscellaneous refinery and coal products account for most of the employment in this industry. In Massachusetts, approximately 70 percent of the industry's employment is in asphalt, paving and roofing materials.

Occupational Structure

Production and maintenance workers have most of the jobs(1,020 or 62.2 percent) in this industry.

TOP TEN OCCUPATIONS

Occupation	Jobs
Crushing,Grinding,Mixing & Blending Machine Oper	160
All Other Helpers, Laborers, Movers-Hand	100
All Other Plant and Systems Operators	90
Truck Drivers, Heavy	80
First Line Supervisors-Production & Related	60
Machinery Maintenance Mechanics	60
General Managers and Top Executives	50
Secretaries	50
Sales Representatives,ex Scientific and Related	50
Industrial Truck and Tractor Operators	50

PETROLEUM AND COAL PRODUCTS
SIC - 29
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1640	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	130	7.93	N/A
FINANCIAL MANAGERS	10	0.61	12.50
PURCHASING MANAGERS	10	0.61	25.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.61	0.00
INDUSTRIAL PRODUCTION MANAGERS	30	1.83	24.97
MINING, QUARRYING AND OIL AND GAS WELL DRILLING MANAGER	10	0.61	19.99
GENERAL MANAGERS AND TOP EXECUTIVES	50	3.05	15.82
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.61	36.35
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	110	6.71	N/A
ACCOUNTANTS AND AUDITORS	10	0.61	9.09
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.61	13.32
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
COMPUTER ENGINEERS	10	0.61	0.00
MECHANICAL ENGINEERS	30	1.83	5.66
ALL OTHER ENGINEERS	**	N/A	N/A
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.61	0.00
DRAFTERS	10	0.61	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.61	0.00
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	20	1.22	13.33
SALES AND RELATED OCCUPATIONS	100	6.10	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.61	33.33
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	30	1.83	19.59
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	50	3.05	20.78
ALL OTHER SALES AND RELATED WORKERS	10	0.61	50.00
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	260	15.86	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	1.22	19.50
ADJUSTMENT CLERKS	10	0.61	24.49
SECRETARIES	50	3.05	13.38
RECEPTIONISTS AND INFORMATION CLERKS	10	0.61	19.99
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.61	30.62

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PETROLEUM AND COAL PRODUCTS
SIC - 29
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	30	1.83	32.64
PAYROLL AND TIMEKEEPING CLERKS	10	0.61	16.66
BILLING, COST AND RATE CLERKS	10	0.61	14.28
GENERAL OFFICE CLERK	40	2.44	11.47
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	10	0.61	25.51
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.61	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.61	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	1.83	11.71
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.61	28.28
SERVICE OCCUPATIONS	20	1.22	N/A
GUARDS AND WATCH GUARDS	10	0.61	39.99
JANITORS AND CLEANERS	10	0.61	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1020	62.18	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.61	8.33
FIRST LINE SUPERVISORS - CONSTRUCTION AND RELATED	20	1.22	31.57
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	60	3.66	8.44
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	1.22	45.27
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	20	1.22	4.54
MACHINERY MAINTENANCE MECHANICS	60	3.66	15.32
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.61	18.89
AUTOMOTIVE MECHANICS	20	1.22	32.22
CARPENTERS	10	0.61	34.99
ELECTRICIANS	10	0.61	15.75
EXTRACTIVE AND RELATED WORKERS - INCLUDING BLASTERS	10	0.61	48.43
MACHINISTS	20	1.22	0.00
ALL OTHER PRECISION METAL WORKERS	**	N/A	N/A
ALL OTHER PRECISION WORKERS	40	2.44	60.99
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.61	48.98
CHEMICAL EQUIPMENT TENDERS	10	0.61	48.98
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.61	24.74
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	160	9.75	12.51
PACKAGING AND FILLING MACHINE OPERATORS	30	1.83	27.37
ALL OTHER MACHINE SETTERS	30	1.83	0.00
ALL OTHER MACHINE OPERATORS	**	N/A	N/A
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	30	1.83	0.00
ALL OTHER HAND WORKERS	10	0.61	57.58

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PETROLEUM AND COAL PRODUCTS
SIC - 29
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PLANT AND SYSTEM OPERATORS	90	5.48	30.36
TRUCK DRIVERS, HEAVY	80	4.87	29.23
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.61	21.65
CRANE AND TOWER OPERATORS	40	2.44	39.29
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	3.05	30.05
CONVEYOR OPERATORS AND TENDERS	10	0.61	41.66
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	1.22	46.65
CONSTRUCTIVE TRADES, EXTRACTIVE WORKER HELPER	10	0.61	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	10	0.61	26.35
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	100	6.09	35.04

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ASPHALT PAVING AND ROOFING MATERIALS
SIC - 295
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1170	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	8.53	N/A
FINANCIAL MANAGERS	10	0.85	14.28
PURCHASING MANAGERS	10	0.85	33.33
INDUSTRIAL PRODUCTION MANAGERS	20	1.71	29.73
MINING, QUARRYING AND OIL AND GAS WELL DRILLING MANAGER	10	0.85	19.99
GENERAL MANAGERS AND TOP EXECUTIVES	40	3.42	23.73
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.85	39.99
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	20	1.70	N/A
ACCOUNTANTS AND AUDITORS	10	0.85	14.28
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
MECHANICAL ENGINEERS	10	0.85	28.28
SALES AND RELATED OCCUPATIONS	70	5.97	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.85	33.33
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.85	44.53
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	40	3.42	23.61
ALL OTHER SALES AND RELATED WORKERS	10	0.85	50.00
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	170	14.48	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.85	27.63
ADJUSTMENT CLERKS	10	0.85	30.61
SECRETARIES	30	2.56	20.49
RECEPTIONISTS AND INFORMATION CLERKS	10	0.85	19.99
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.85	40.82
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.71	43.08
PAYROLL AND TIMEKEEPING CLERKS	10	0.85	16.66
BILLING, COST AND RATE CLERKS	10	0.85	19.99
GENERAL OFFICE CLERK	30	2.56	14.06
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	10	0.85	25.51
TRAFFIC, SHIPPING AND RECEIVING CLERKS	10	0.85	26.35
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.85	28.28

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ASPHALT PAVING AND ROOFING MATERIALS
SIC - 295
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	10	0.86	N/A
GUARDS AND WATCH GUARDS	10	0.86	39.99
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	800	68.46	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.86	12.49
FIRST LINE SUPERVISORS - CONSTRUCTION AND RELATED	10	0.86	42.85
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	40	3.42	11.66
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	1.71	47.79
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	10	0.86	16.66
MACHINERY MAINTENANCE MECHANICS	60	5.13	15.32
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.86	26.45
AUTOMOTIVE MECHANICS	10	0.86	39.12
CARPENTERS	10	0.86	48.98
ELECTRICIANS	10	0.86	17.32
EXTRACTIVE AND RELATED WORKERS - INCLUDING BLASTERS	10	0.86	48.43
ALL OTHER PRECISION WORKERS	40	3.42	60.99
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.86	48.98
CHEMICAL EQUIPMENT TENDERS	10	0.86	48.98
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.86	28.86
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	130	11.11	15.10
ALL OTHER MACHINE OPERATORS	10	0.86	56.69
ALL OTHER HAND WORKERS	10	0.86	62.01
ALL OTHER PLANT AND SYSTEM OPERATORS	90	7.69	30.36
TRUCK DRIVERS, HEAVY	70	5.98	32.03
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.86	34.64
CRANE AND TOWER OPERATORS	40	3.42	39.29
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	40	3.42	32.20
CONVEYOR OPERATORS AND TENDERS	10	0.86	41.66
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	1.71	46.65
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	100	8.55	40.47

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS (SIC 30)

Industry Description

This major group includes establishments manufacturing products from plastics resins and from natural, synthetic, or reclaimed rubber,gutta percha, balata, or gutta siak.

Employment Trends

By 1989 employment in this industry had declined by 4,100 jobs or 14 percent from its 1986 level of 29,400 jobs. The industry represented 4.8 percent of the state's manufacturing employment in 1986 and that percentage declined to 4.5 percent in 1989.

Occupational Structure

The top ranked occupations include 8 in the production and maintenance category with 11,720 jobs or 46 percent of this industry's employment.

TOP TEN OCCUPATIONS

Occupation	Jobs
All Other Machine Operators	2,940
Plastic Molding and Coding Machine Operators and Tenders	1,830
Assemblers and Fabricator - Except Machine, Electrical	1,530
Hand Packers and Packagers	1,460
Extruding and Drawing Machine Setters and Set-up Operators	1,320
All Other Machine Setters	1,100
General Managers and Top Executives	800
First Line Supervisors-Production and Related	800
All Other Helpers, Laborers, Movers-Hand	730
Traffic, Shipping and Receiving Clerks	560

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
SIC - 30
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	25740	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1980	7.69	N/A
FINANCIAL MANAGERS	140	0.54	11.10
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	70	0.27	14.08
PURCHASING MANAGERS	60	0.23	21.74
MARKETING, ADVERTISING AND RELATED MANAGERS	210	0.82	21.31
ADMINISTRATIVE SERVICE MANAGERS	30	0.12	36.49
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	170	0.66	23.36
INDUSTRIAL PRODUCTION MANAGERS	320	1.24	12.84
GENERAL MANAGERS AND TOP EXECUTIVES	800	3.11	9.45
ALL OTHER MANAGERS AND ADMINISTRATORS	180	0.70	24.40
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1670	6.48	N/A
ACCOUNTANTS AND AUDITORS	150	0.58	20.94
ALL OTHER FINANCIAL SPECIALISTS	30	0.12	11.17
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	140	0.54	16.15
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	70	0.27	15.28
COST ESTIMATORS	30	0.12	30.64
ALL OTHER MANAGEMENT SUPPORT WORKERS	80	0.31	23.66
CHEMICAL ENGINEERS	160	0.62	23.53
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	40	0.15	33.62
MECHANICAL ENGINEERS	110	0.43	20.40
ALL OTHER ENGINEERS	110	0.43	34.36
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	50	0.19	40.84
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	40	0.15	25.71
DRAFTERS	70	0.27	27.40
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	90	0.35	47.77
CHEMISTS, EXCEPT BIOCHEMISTS	80	0.31	24.44
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	160	0.62	28.95
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	60	0.23	11.46
COMPUTER PROGRAMMERS	40	0.16	23.09
COMPUTER PROGRAMMER AIDES	30	0.12	27.72
ALL OTHER COMPUTER SCIENTISTS	10	0.04	0.00
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.04	34.49
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.16	38.65
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	70	0.27	76.88
SALES AND RELATED OCCUPATIONS	730	2.84	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
SIC - 30
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	140	0.54	20.76
SALES ENGINEERS	70	0.27	18.98
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	110	0.43	29.16
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	300	1.17	22.74
ALL OTHER SALES AND RELATED WORKERS	110	0.43	32.02
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2920	11.35	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	90	0.35	20.60
ADJUSTMENT CLERKS	160	0.62	16.09
SECRETARIES	410	1.59	15.17
RECEPTIONISTS AND INFORMATION CLERKS	50	0.19	19.65
TYPISTS	10	0.04	21.43
TYPISTS, WORD PROCESSING EQUIPMENT	20	0.08	29.53
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	50	0.19	18.29
FILE CLERKS	10	0.04	25.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	280	1.09	33.84
PROCUREMENT CLERKS	40	0.16	28.11
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	430	1.67	17.94
PAYROLL AND TIMEKEEPING CLERKS	60	0.23	21.78
BILLING, COST AND RATE CLERKS	80	0.31	18.95
GENERAL OFFICE CLERK	200	0.78	23.78
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	40	0.16	27.75
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	0.27	43.37
ALL OTHER OFFICE MACHINE OPERATORS	10	0.04	17.68
SWITCHBOARD OPERATOR	60	0.23	21.18
PRODUCTION, PLANNING, EXPEDITING CLERKS	140	0.54	17.87
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	20	0.08	15.06
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	90	0.35	28.72
TRAFFIC, SHIPPING AND RECEIVING CLERKS	560	2.18	11.60
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	30	0.12	48.04
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.04	23.69
SERVICE OCCUPATIONS	330	1.28	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.08	19.51
GUARDS AND WATCH GUARDS	60	0.23	12.95
JANITORS AND CLEANERS	230	0.89	18.16
ALL OTHER SERVICE WORKERS	20	0.08	7.22

1 SUMMED PARTS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
SIC - 30
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	18110	70.36	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	80	0.31	15.55
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	800	3.11	10.09
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	30	0.12	30.05
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.08	33.39
PRECISION INSPECTORS, TESTERS, AND GRADERS	250	0.97	34.14
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	370	1.44	26.57
MACHINERY MAINTENANCE MECHANICS	230	0.89	23.83
MACHINERY MAINTENANCE WORKERS	100	0.39	30.23
MAINTENANCE REPAIRERS, GENERAL UTILITY	360	1.40	18.70
PRECISION INSTRUMENT REPAIRERS	10	0.04	48.98
ELECTRICIANS	90	0.35	20.44
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	20	0.08	32.12
TOOL AND DIE MAKERS	360	1.40	48.96
MACHINISTS	420	1.63	40.06
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	10	0.04	41.46
ALL OTHER PRECISION WORKERS	550	2.14	73.28
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	60	0.23	49.51
EXTRUDING AND DRAWING MACHINE SETTERS AND SET-UP OPERAT	1320	5.13	27.25
MACHINE FORM OPERATORS, METAL AND PLASTICS	360	1.40	44.86
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	350	1.36	34.47
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	1830	7.11	32.10
SHOE SEWING MACHINE OPERATORS	50	0.19	0.00
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.08	41.14
CUTTING AND SLICING MACHINE OPERATORS	330	1.28	44.26
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	110	0.43	35.03
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	230	0.89	38.44
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	370	1.44	40.52
ALL OTHER MACHINE SETTERS	1100	4.27	75.22
ALL OTHER MACHINE OPERATORS	2940	11.42	57.27
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	1540	5.98	25.44
ALL OTHER HAND WORKERS	310	1.20	57.50
STATIONARY ENGINEERS	20	0.08	35.31
ALL OTHER PLANT AND SYSTEM OPERATORS	60	0.23	63.85
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	60	0.23	45.58
ALL OTHER TRANSPORTATION WORKERS	150	0.58	51.61
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	410	1.59	26.54
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	40	0.16	61.55
MECHANIC AND REPAIRER HELPERS	40	0.16	36.56
MACHINE FEEDERS AND OFFBEARERS	260	1.01	38.35

1 SUMMED PARTS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
SIC - 30
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	260	1.01	29.62
HAND PACKERS AND PACKAGERS	1460	5.67	29.34
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	730	2.84	37.27

1 SUMMED PARTS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED RUBBER PRODUCTS, NEC
SIC - 306
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	4400	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	370	8.41	N/A
FINANCIAL MANAGERS	20	0.45	14.43
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.23	20.00
PURCHASING MANAGERS	10	0.23	20.20
MARKETING, ADVERTISING AND RELATED MANAGERS	60	1.36	31.57
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	0.68	26.93
INDUSTRIAL PRODUCTION MANAGERS	50	1.14	8.31
GENERAL MANAGERS AND TOP EXECUTIVES	110	2.50	11.82
ALL OTHER MANAGERS AND ADMINISTRATORS	80	1.82	30.11
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	370	8.39	N/A
ACCOUNTANTS AND AUDITORS	40	0.91	34.57
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.45	13.46
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	20	0.45	18.85
COST ESTIMATORS	10	0.23	33.07
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.45	26.95
CHEMICAL ENGINEERS	40	0.91	18.95
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.23	25.71
MECHANICAL ENGINEERS	30	0.68	12.82
ALL OTHER ENGINEERS	10	0.23	38.72
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.45	0.00
DRAFTERS	10	0.23	19.99
CHEMISTS, EXCEPT BIOCHEMISTS	20	0.45	10.20
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	40	0.91	17.24
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.23	30.76
COMPUTER PROGRAMMERS	20	0.45	28.57
DESIGNERS, EXCEPT INTERIOR DESIGNERS	30	0.68	42.18
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	20	0.45	64.49
SALES AND RELATED OCCUPATIONS	180	4.08	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.23	48.98
SALES ENGINEERS	20	0.45	48.73
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	0.45	35.90
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	100	2.27	27.73
ALL OTHER SALES AND RELATED WORKERS	30	0.68	43.51

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED RUBBER PRODUCTS, NEC
SIC - 306
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	490	11.13	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	0.45	27.48
ADJUSTMENT CLERKS	20	0.45	33.28
SECRETARIES	100	2.27	17.82
RECEPTIONISTS AND INFORMATION CLERKS	10	0.23	34.64
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.23	16.66
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	0.68	24.13
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	80	1.82	24.31
PAYROLL AND TIMEKEEPING CLERKS	10	0.23	23.07
BILLING, COST AND RATE CLERKS	10	0.23	45.06
GENERAL OFFICE CLERK	30	0.68	29.05
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.45	26.83
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.45	33.99
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	10	0.23	24.49
PRODUCTION, PLANNING, EXPEDITING CLERKS	40	0.91	16.95
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.23	48.41
TRAFFIC, SHIPPING AND RECEIVING CLERKS	70	1.59	25.23
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	40	0.91	N/A
JANITORS AND CLEANERS	40	0.91	16.72
ALL OTHER SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2950	67.08	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.23	22.22
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	160	3.64	8.67
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.23	25.51
PRECISION INSPECTORS, TESTERS, AND GRADERS	30	0.68	19.23
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	70	1.59	25.40
MACHINERY MAINTENANCE MECHANICS	30	0.68	32.08
MACHINERY MAINTENANCE WORKERS	40	0.91	35.64
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.36	36.20
PRECISION INSTRUMENT REPAIRERS	10	0.23	48.98
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	30	0.68	44.82
CARPENTERS	10	0.23	35.35
ELECTRICIANS	30	0.68	26.76

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED RUBBER PRODUCTS, NEC
SIC - 306
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	20	0.45	31.26
MACHINISTS	40	0.91	30.82
ALL OTHER PRECISION WORKERS	80	1.82	70.59
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	10	0.23	48.98
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	40	0.91	38.56
MACHINE FORM OPERATORS, METAL AND PLASTICS	70	1.59	29.06
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATOR	**	N/A	N/A
FURNACE, KILN, OVEN, DRIER OR KETTLE OPERATORS AND TEND	80	1.82	39.04
BOILER OPERATORS AND TENDERS, LOW PRESSURE	20	0.46	33.07
CUTTING AND SLICING MACHINE OPERATORS	70	1.59	33.65
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.23	48.98
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	30	0.68	49.97
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	110	2.50	27.86
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	210	4.77	30.78
ALL OTHER MACHINE SETTERS	80	1.82	61.03
ALL OTHER MACHINE OPERATORS	420	9.55	60.92
WELDERS AND CUTTERS	10	0.23	30.61
CUTTERS AND TRIMMERS, HAND	60	1.36	32.89
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	140	3.18	32.47
ALL OTHER HAND WORKERS	10	0.23	40.06
STATIONARY ENGINEERS	20	0.46	35.31
ALL OTHER TRANSPORTATION WORKERS	10	0.23	62.32
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	100	2.27	25.99
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.23	48.98
MACHINE FEEDERS AND OFFBEARERS	160	3.64	32.18
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	10	0.23	41.42
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	640	14.55	43.41

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS PLASTICS PRODUCTS, NEC
SIC - 308
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	19270	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1410	7.33	N/A
FINANCIAL MANAGERS	90	0.47	14.26
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	50	0.26	15.82
PURCHASING MANAGERS	40	0.21	26.40
MARKETING, ADVERTISING AND RELATED MANAGERS	110	0.57	24.05
ADMINISTRATIVE SERVICE MANAGERS	30	0.16	38.84
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	100	0.52	32.50
INDUSTRIAL PRODUCTION MANAGERS	260	1.35	13.89
GENERAL MANAGERS AND TOP EXECUTIVES	640	3.32	9.54
ALL OTHER MANAGERS AND ADMINISTRATORS	90	0.47	23.70
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	940	4.88	N/A
ACCOUNTANTS AND AUDITORS	60	0.31	28.01
ALL OTHER FINANCIAL SPECIALISTS	10	0.05	49.48
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	100	0.52	18.04
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	30	0.16	21.18
COST ESTIMATORS	20	0.10	35.90
ALL OTHER MANAGEMENT SUPPORT WORKERS	40	0.21	34.09
CHEMICAL ENGINEERS	70	0.36	44.14
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	30	0.16	38.26
MECHANICAL ENGINEERS	70	0.36	24.88
ALL OTHER ENGINEERS	90	0.47	38.37
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	40	0.21	48.17
DRAFTERS	50	0.26	38.07
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	100	0.52	49.21
CHEMISTS, EXCEPT BIOCHEMISTS	40	0.21	38.55
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	90	0.47	41.93
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.05	37.79
COMPUTER PROGRAMMERS	10	0.05	24.32
COMPUTER PROGRAMMER AIDES	20	0.10	32.21
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	60	0.31	81.75
SALES AND RELATED OCCUPATIONS	370	1.92	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	90	0.47	25.58
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	80	0.41	29.66
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	150	0.78	25.88

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS PLASTICS PRODUCTS, NEC
SIC - 308
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SALES AND RELATED WORKERS	50	0.26	50.98
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2030	10.54	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	60	0.31	25.48
ADJUSTMENT CLERKS	110	0.57	17.26
SECRETARIES	240	1.24	17.67
RECEPTIONISTS AND INFORMATION CLERKS	50	0.26	18.05
TYPISTS	10	0.05	42.85
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	30	0.16	18.18
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	220	1.14	36.59
PROCUREMENT CLERKS	30	0.16	32.40
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	300	1.56	19.27
PAYROLL AND TIMEKEEPING CLERKS	40	0.21	21.62
BILLING, COST AND RATE CLERKS	50	0.26	24.47
GENERAL OFFICE CLERK	150	0.78	25.06
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.05	46.83
SWITCHBOARD OPERATOR	30	0.16	28.57
PRODUCTION, PLANNING, EXPEDITING CLERKS	80	0.41	21.63
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	70	0.36	31.65
TRAFFIC, SHIPPING AND RECEIVING CLERKS	460	2.39	10.32
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	90	0.47	53.97
SERVICE OCCUPATIONS	190	0.98	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.05	47.38
GUARDS AND WATCH GUARDS	10	0.05	46.83
JANITORS AND CLEANERS	170	0.88	20.26
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	14330	74.35	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	60	0.31	16.06
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	590	3.06	10.83
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.05	39.22
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.10	38.40
PRECISION INSPECTORS, TESTERS, AND GRADERS	220	1.14	36.16
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	290	1.50	27.11
MACHINERY MAINTENANCE MECHANICS	180	0.93	23.73
MACHINERY MAINTENANCE WORKERS	50	0.26	26.38
MAINTENANCE REPAIRERS, GENERAL UTILITY	280	1.45	15.64
ELECTRICIANS	50	0.26	18.57

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS PLASTICS PRODUCTS, NEC
SIC - 308
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
TOOL AND DIE MAKERS	340	1.76	49.27
MACHINISTS	350	1.82	42.88
ALL OTHER PRECISION WORKERS	430	2.23	77.27
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	50	0.26	48.41
EXTRUDING AND DRAWING MACHINE SETTERS AND SET-UP OPERAT	1230	6.38	28.51
MACHINE FORM OPERATORS, METAL AND PLASTICS	290	1.50	49.06
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	350	1.82	34.57
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	1460	7.58	26.59
CUTTING AND SLICING MACHINE OPERATORS	240	1.24	48.56
ALL OTHER MACHINE SETTERS	980	5.09	79.41
ALL OTHER MACHINE OPERATORS	2900	15.05	60.46
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	1330	6.90	23.86
ALL OTHER HAND WORKERS	170	0.88	86.77
ALL OTHER PLANT AND SYSTEM OPERATORS	50	0.26	61.89
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	60	0.31	47.98
ALL OTHER TRANSPORTATION WORKERS	140	0.73	51.51
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	310	1.61	26.80
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	30	0.16	70.43
MECHANIC AND REPAIRER HELPERS	40	0.21	36.56
MACHINE FEEDERS AND OFFBEARERS	100	0.52	48.07
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	230	1.19	31.80
HAND PACKERS AND PACKAGERS	1150	5.97	24.54
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	350	1.82	38.82

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

LEATHER AND LEATHER PRODUCTS
(SIC 31)

Industry Description

This major group includes establishments engaged in tanning, currying, and finishing hides and skins; leather converters; and establishments manufacturing finished leather and artificial leather products and some similar products made of other materials.

Employment Trends

This historically significant sector of the Massachusetts economy continued to show employment deterioration between 1986 and 1989 dropping 2,500 jobs or 25 percent. This industry also declined from a 4.9 percent share of the nondurable goods sector in 1986 to 4.0 percent in 1989. The leather industry lost employment as foreign imported shoes and leather goods continued to increase their penetration and market share in the United States.

Occupational Structure

Jobs in the production and maintenance occupational grouping represent 65 percent of this industry's employment. Total jobs in this grouping dropped by 2,440 jobs or 33 percent of the grouping's employment from 1986-1989. The top ranked occupation in this industry as well as grouping, Shoe and Leather Workers and Repairers-Precision, dropped its' employment from 1,660 to 760, a job loss of 900 or 54 percent over the 1986-1989 time frame.

TOP TEN OCCUPATIONS

Occupation	Jobs
Shoe and Leather Workers and Repairer-Precision	760
All other Machine Operators	520
Shoe Sewing Machine Operators	430
Assemblers and Fabricators-Except Machine, Electrical	350
Traffic, Shipping and Receiving Clerks	310
General Managers and Top Executives	280
All Other Helpers, Laborers, Movers-Hand	270
All Other Hand Workers	250
Hand packers and Packagers	220
Sales Representatives, exc. Scientific & Related Prod.	190

LEATHER AND LEATHER PRODUCTS
SIC - 31
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	7480	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	670	8.96	N/A
FINANCIAL MANAGERS	60	0.80	17.90
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	30	0.40	7.54
PURCHASING MANAGERS	30	0.40	18.77
MARKETING, ADVERTISING AND RELATED MANAGERS	80	1.07	17.87
ADMINISTRATIVE SERVICE MANAGERS	10	0.14	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	50	0.67	20.96
INDUSTRIAL PRODUCTION MANAGERS	70	0.94	19.03
GENERAL MANAGERS AND TOP EXECUTIVES	280	3.74	11.98
ALL OTHER MANAGERS AND ADMINISTRATORS	60	0.80	9.07
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	240	3.26	N/A
ACCOUNTANTS AND AUDITORS	50	0.67	21.62
ALL OTHER FINANCIAL SPECIALISTS	20	0.27	6.73
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.27	23.11
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.14	0.00
COST ESTIMATORS	10	0.14	12.86
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.40	8.16
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.14	0.00
MECHANICAL ENGINEERS	10	0.14	0.00
ALL OTHER ENGINEERS	**	N/A	N/A
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	10	0.14	44.44
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.27	4.34
COMPUTER PROGRAMMERS	20	0.27	11.77
COMPUTER PROGRAMMER AIDES	10	0.14	11.54
ALL OTHER COMPUTER SCIENTISTS	10	0.14	12.49
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.13	17.68
SALES AND RELATED OCCUPATIONS	290	3.88	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	40	0.54	24.57
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.13	29.39
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	190	2.54	10.12
SALESPERSONS, RETAIL TRADE	50	0.67	29.38
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1320	17.62	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

LEATHER AND LEATHER PRODUCTS
SIC - 31
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	100	1.34	25.15
ADJUSTMENT CLERKS	120	1.60	20.17
SECRETARIES	110	1.47	13.12
RECEPTIONISTS AND INFORMATION CLERKS	20	0.27	5.00
TYPISTS	10	0.13	14.28
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.13	19.99
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.13	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	0.40	14.70
PROCUREMENT CLERKS	10	0.13	8.33
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	120	1.60	14.03
PAYROLL AND TIMEKEEPING CLERKS	30	0.40	13.20
BILLING, COST AND RATE CLERKS	70	0.94	16.24
GENERAL OFFICE CLERK	130	1.74	27.86
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	30	0.40	19.88
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.27	12.42
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.54	11.46
ALL OTHER OFFICE MACHINE OPERATORS	10	0.13	15.71
SWITCHBOARD OPERATOR	10	0.13	9.43
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.27	19.03
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.13	42.04
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	60	0.80	34.83
TRAFFIC, SHIPPING AND RECEIVING CLERKS	310	4.14	27.48
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	30	0.40	23.15
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.13	0.00
SERVICE OCCUPATIONS	100	1.34	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.27	48.95
GUARDS AND WATCH GUARDS	30	0.40	12.28
JANITORS AND CLEANERS	50	0.67	18.91
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4860	64.94	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	60	0.80	22.75
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	120	1.60	21.21
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.13	29.81
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.27	33.54
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.13	46.35
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.27	39.03
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	140	1.87	23.52

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

LEATHER AND LEATHER PRODUCTS
SIC - 31
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACHINES	20	0.27	5.88
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	20	0.27	19.66
ALL OTHER MACHINERY MAINTENANCE MECHANICS	10	0.13	44.88
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	0.80	23.91
CARPENTERS	10	0.13	0.00
ELECTRICIANS	10	0.13	0.00
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	10	0.13	30.17
SHOE AND LEATHER WORKERS AND REPAIRERS - PRECISION	760	10.16	22.52
PRECISION DYERS	20	0.27	27.56
ALL OTHER PRECISION TEXTILE AND RELATED WORKERS	10	0.13	44.95
ALL OTHER PRECISION WORKERS	10	0.13	56.98
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATOR	10	0.13	39.99
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	10	0.13	42.85
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	20	0.27	35.63
TEXTILE DRAW-OUT MACHINE OPERATORS AND TENDERS	120	1.60	0.00
SEWING MACHINE OPERATORS, NON-GARMENT	50	0.67	47.29
SHOE SEWING MACHINE OPERATORS	430	5.75	14.40
PRESSING MACHINE OPERATORS, TEXTILE	10	0.13	40.82
FURNACE, KILN, OVEN, DRIER OR KETTLE OPERATORS AND TEND	10	0.13	42.85
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	100	1.34	25.50
CUTTING AND SLICING MACHINE OPERATORS	150	2.01	23.89
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	80	1.07	23.73
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	140	1.87	29.06
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	20	0.27	35.80
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	60	0.80	20.98
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	30	0.40	12.49
PACKAGING AND FILLING MACHINE OPERATORS	30	0.40	21.33
ALL OTHER MACHINE SETTERS	70	0.94	38.47
ALL OTHER MACHINE OPERATORS	520	6.95	60.19
HAND SEWERS	70	0.94	36.69
CUTTERS AND TRIMMERS, HAND	180	2.41	26.69
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	350	4.68	42.02
ALL OTHER HAND WORKERS	250	3.34	36.60
TRUCK DRIVERS, HEAVY	20	0.27	22.04
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.13	14.14
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.27	17.01
CONVEYOR OPERATORS AND TENDERS	10	0.13	39.99
MACHINE FEEDERS AND OFFBEARERS	110	1.47	23.73
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	170	2.27	24.74
HAND PACKERS AND PACKAGERS	220	2.94	38.27
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	270	3.61	29.41

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FOOTWEAR CUT STOCK
SIC - 313
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1590	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	140	8.81	N/A
FINANCIAL MANAGERS	10	0.63	28.86
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.63	23.57
PURCHASING MANAGERS	10	0.63	38.49
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.63	28.28
INDUSTRIAL PRODUCTION MANAGERS	20	1.26	18.02
GENERAL MANAGERS AND TOP EXECUTIVES	80	5.03	9.63
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	20	1.26	N/A
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.63	27.63
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.63	70.71
SALES AND RELATED OCCUPATIONS	50	3.14	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	30	1.88	15.59
ALL OTHER SALES AND RELATED WORKERS	20	1.26	48.98
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	210	13.20	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	1.26	44.79
ADJUSTMENT CLERKS	10	0.63	15.71
SECRETARIES	20	1.26	19.92
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.63	23.57
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	30	1.88	16.31
BILLING, COST AND RATE CLERKS	30	1.88	34.61
GENERAL OFFICE CLERK	20	1.26	29.39
SWITCHBOARD OPERATOR	10	0.63	28.28
TRAFFIC, SHIPPING AND RECEIVING CLERKS	50	3.14	13.44
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.63	73.00
SERVICE OCCUPATIONS	10	0.63	N/A
JANITORS AND CLEANERS	10	0.63	14.14
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1160	72.96	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FOOTWEAR CUT STOCK
SIC - 313
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	30	1.89	20.95
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	30	1.89	20.00
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	60	3.77	28.86
MACHINERY MAINTENANCE MECHANICS, TEXTILE MACHINES	10	0.63	0.00
ALL OTHER MACHINERY MAINTENANCE MECHANICS	**	N/A	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.63	19.99
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
ELECTRICIANS	10	0.63	0.00
SHOE AND LEATHER WORKERS AND REPAIRERS - PRECISION	60	3.77	39.64
ALL OTHER PRECISION WORKERS	10	0.63	73.57
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	20	1.26	35.63
TEXTILE DRAW-OUT MACHINE OPERATORS AND TENDERS	120	7.55	0.00
SHOE SEWING MACHINE OPERATORS	60	3.77	27.51
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	10	0.63	15.74
CUTTING AND SLICING MACHINE OPERATORS	70	4.40	24.91
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	20	1.26	32.29
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	60	3.77	27.18
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	10	0.63	27.66
PACKAGING AND FILLING MACHINE OPERATORS	10	0.63	10.87
ALL OTHER MACHINE SETTERS	20	1.26	57.50
ALL OTHER MACHINE OPERATORS	180	11.32	73.40
CUTTERS AND TRIMMERS, HAND	20	1.26	34.66
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	120	7.55	41.44
ALL OTHER HAND WORKERS	110	6.92	34.89
TRUCK DRIVERS, HEAVY	10	0.63	0.00
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.63	28.28
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.63	0.00
MACHINE FEEDERS AND OFFBEARERS	30	1.88	48.49
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	10	0.63	17.49
HAND PACKERS AND PACKAGERS	40	2.51	29.27
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	**	N/A	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FOOTWEAR, EXCEPT RUBBER
SIC - 314
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3440	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	340	9.90	N/A
FINANCIAL MANAGERS	30	0.87	7.99
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.58	4.99
PURCHASING MANAGERS	20	0.58	8.24
MARKETING, ADVERTISING AND RELATED MANAGERS	60	1.75	16.31
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	40	1.17	22.96
INDUSTRIAL PRODUCTION MANAGERS	20	0.58	9.09
GENERAL MANAGERS AND TOP EXECUTIVES	90	2.62	8.57
ALL OTHER MANAGERS AND ADMINISTRATORS	60	1.75	6.98
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	180	5.22	N/A
ACCOUNTANTS AND AUDITORS	30	0.87	10.54
ALL OTHER FINANCIAL SPECIALISTS	20	0.58	7.07
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.29	0.00
COST ESTIMATORS	10	0.29	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.87	8.74
ALL OTHER ENGINEERS	**	N/A	N/A
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	10	0.29	44.44
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.58	4.54
COMPUTER PROGRAMMERS	20	0.58	13.15
COMPUTER PROGRAMMER AIDES	20	0.58	11.54
ALL OTHER COMPUTER SCIENTISTS	10	0.29	12.49
SALES AND RELATED OCCUPATIONS	200	5.81	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	30	0.87	11.94
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.29	44.09
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	130	3.78	4.02
SALESPERSONS, RETAIL TRADE	30	0.87	23.52
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	750	21.81	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	50	1.45	9.99
ADJUSTMENT CLERKS	60	1.75	9.81
SECRETARIES	70	2.04	7.84
RECEPTIONISTS AND INFORMATION CLERKS	10	0.29	7.14
TYPISTS	10	0.29	14.28

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FOOTWEAR, EXCEPT RUBBER
SIC - 314
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.29	19.99
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.29	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	0.87	7.69
PROCUREMENT CLERKS	10	0.29	8.33
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	40	1.17	8.38
PAYROLL AND TIMEKEEPING CLERKS	20	0.58	4.76
BILLING, COST AND RATE CLERKS	40	1.17	2.56
GENERAL OFFICE CLERK	60	1.75	14.96
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	20	0.58	0.00
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.58	5.26
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.87	12.47
ALL OTHER OFFICE MACHINE OPERATORS	10	0.29	15.71
SWITCHBOARD OPERATOR	10	0.29	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.58	10.18
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.29	23.57
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	50	1.45	30.30
TRAFFIC, SHIPPING AND RECEIVING CLERKS	120	3.49	16.13
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	30	0.87	23.15
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.29	0.00
SERVICE OCCUPATIONS	60	1.74	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.29	0.00
GUARDS AND WATCH GUARDS	20	0.58	15.07
JANITORS AND CLEANERS	30	0.87	11.29
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1910	55.52	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	30	0.87	24.33
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	40	1.17	16.01
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.58	33.54
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.58	39.03
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	20	0.58	20.38
MACHINERY MAINTENANCE MECHANICS, SEWING MACHINES	10	0.29	0.00
ALL OTHER MACHINERY MAINTENANCE MECHANICS	**	N/A	N/A
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.29	22.22
FABRIC AND APPAREL PATTERNMAKERS AND LAYOUT WORKERS	10	0.29	19.99
SHOE AND LEATHER WORKERS AND REPAIRERS - PRECISION	580	16.86	18.63
ALL OTHER PRECISION TEXTILE AND RELATED WORKERS	**	N/A	N/A
PLASTIC MOLDING AND CASTING MACHINE OPERATORS	10	0.29	33.07

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FOOTWEAR, EXCEPT RUBBER
SIC - 314
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	10	0.29	42.85
SEWING MACHINE OPERATORS, NON-GARMENT	10	0.29	40.82
SHOE SEWING MACHINE OPERATORS	340	9.89	8.72
PRESSING MACHINE OPERATORS, TEXTILE	10	0.29	40.82
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	60	1.75	21.76
CUTTING AND SLICING MACHINE OPERATORS	10	0.29	44.09
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	20	0.58	28.84
CEMENTING AND GLUING MACHINE OPERATORS AND TENDERS	50	1.45	18.74
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	10	0.29	47.14
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE OPE	30	0.87	12.49
PACKAGING AND FILLING MACHINE OPERATORS	10	0.29	23.57
ALL OTHER MACHINE OPERATORS	20	0.58	27.83
HAND SEWERS	40	1.16	30.06
CUTTERS AND TRIMMERS, HAND	90	2.62	12.90
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	20	0.58	36.40
ALL OTHER HAND WORKERS	50	1.45	30.59
TRUCK DRIVERS, HEAVY	10	0.29	37.26
CONVEYOR OPERATORS AND TENDERS	10	0.29	39.99
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	**	N/A	N/A
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	120	3.49	24.28
HAND PACKERS AND PACKAGERS	100	2.91	23.63
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	140	4.07	21.61

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

HANDBAGS AND PERSONAL LEATHER GOODS
SIC - 317
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1350	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	80	5.93	N/A
FINANCIAL MANAGERS	20	1.48	33.99
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.74	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.74	34.64
GENERAL MANAGERS AND TOP EXECUTIVES	40	2.97	20.22
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	10	0.74	N/A
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.74	44.09
SALES AND RELATED OCCUPATIONS	20	1.48	N/A
ALL OTHER SALES AND RELATED WORKERS	20	1.48	40.96
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	290	21.48	N/A
ADJUSTMENT CLERKS	50	3.71	32.81
SECRETARIES	10	0.74	20.20
RECEPTIONISTS AND INFORMATION CLERKS	10	0.74	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.48	15.71
PAYROLL AND TIMEKEEPING CLERKS	10	0.74	28.28
GENERAL OFFICE CLERK	20	1.48	34.61
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	170	12.59	48.76
SERVICE OCCUPATIONS	30	2.22	N/A
ALL OTHER SERVICE WORKERS	30	2.22	59.46
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	920	68.15	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	20	1.48	30.42
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	1.48	24.25
ALL OTHER PRECISION WORKERS	90	6.67	45.07
CUTTING AND SLICING MACHINE OPERATORS	30	2.22	24.77
ALL OTHER MACHINE SETTERS	40	2.97	55.16
ALL OTHER MACHINE OPERATORS	280	20.74	52.04
ALL OTHER HAND WORKERS	230	17.04	48.99

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

HANDBAGS AND PERSONAL LEATHER GOODS
SIC - 317
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.74	62.36
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	20	1.48	29.73
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	180	13.33	53.28

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

STONE,CLAY AND GLASS PRODUCTS
(SIC 32)

Industry Description

This major group includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products and other products from materials taken principally from the earth in the form of stone, clay ,and sand.

Employment Trends

This industry lost 800 jobs or 7.4 percent of its workforce between 1986 and 1989 as compared to a 9.0 percent loss for durable goods manufacturing as a whole.

Occupational Structure

Over 68 percent or 6,930 of the workers in this major group held jobs in the production and maintenance occupational category. Eight of the 10 largest occupations are in the production and maintenance category with 3,720 jobs.

TOP TEN OCCUPATIONS

Occupation	Jobs
Truck Drivers, Heavy	1,010
All Other Helpers, Laborers, Movers-Hand	590
First Line Supervisors-Production and Related	400
Freight, Stock and Material Handlers, Hand	370
Production Inspectors, Testers, Graders, Sorters, Samplers	360
General Managers and Top Executives	300
All Other Hand Workers	280
Precision Molders, Shapers, Casters and Carvers,except	240
Furnace, Kiln, Oven, Drier or Kettle Operators and Tenders	240
Industrial Production Managers	230

STONE, CLAY AND GLASS PRODUCTS
SIC - 32
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	10160	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	770	7.57	N/A
FINANCIAL MANAGERS	80	0.79	6.48
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	30	0.29	3.12
PURCHASING MANAGERS	10	0.10	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	60	0.59	6.76
ADMINISTRATIVE SERVICE MANAGERS	20	0.20	36.85
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	0.29	12.90
INDUSTRIAL PRODUCTION MANAGERS	230	2.26	13.57
GENERAL MANAGERS AND TOP EXECUTIVES	300	2.95	11.34
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.10	54.39
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	790	7.76	N/A
ACCOUNTANTS AND AUDITORS	60	0.59	5.17
ALL OTHER FINANCIAL SPECIALISTS	40	0.39	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	0.29	24.54
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	50	0.49	0.00
COST ESTIMATORS	30	0.29	24.56
CHEMICAL ENGINEERS	10	0.10	0.00
CIVIL ENGINEERS, INCLUDING TRAFFIC ENGINEERS	20	0.20	43.03
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.10	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	160	1.57	0.63
MECHANICAL ENGINEERS	30	0.29	0.00
ALL OTHER ENGINEERS	**	N/A	N/A
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	10	0.10	0.00
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	180	1.77	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.20	0.00
DRAFTERS	40	0.39	49.33
ALL OTHER PHYSICAL SCIENTISTS	**	N/A	N/A
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	10	0.10	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	60	0.59	5.53
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.10	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	20	0.20	87.56
SALES AND RELATED OCCUPATIONS	330	3.25	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	50	0.49	6.93
SALES ENGINEERS	20	0.20	6.93

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

STONE, CLAY AND GLASS PRODUCTS
SIC - 32
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	110	1.08	13.52
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	130	1.28	20.23
ALL OTHER SALES AND RELATED WORKERS	20	0.20	8.66
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1280	12.60	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	70	0.69	2.94
ADJUSTMENT CLERKS	60	0.59	0.00
SECRETARIES	190	1.87	16.69
RECEPTIONISTS AND INFORMATION CLERKS	20	0.20	8.84
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.10	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	60	0.59	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	180	1.77	16.86
PAYROLL AND TIMEKEEPING CLERKS	10	0.10	0.00
BILLING, COST AND RATE CLERKS	10	0.10	0.00
GENERAL OFFICE CLERK	210	2.07	10.71
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.10	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.29	0.00
ALL OTHER OFFICE MACHINE OPERATORS	10	0.10	47.38
SWITCHBOARD OPERATOR	10	0.10	27.64
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	50	0.49	26.22
PRODUCTION, PLANNING, EXPEDITING CLERKS	190	1.87	12.20
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	50	0.49	15.84
TRAFFIC, SHIPPING AND RECEIVING CLERKS	100	0.98	14.89
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.10	51.02
SERVICE OCCUPATIONS	60	0.59	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.10	0.00
GUARDS AND WATCH GUARDS	20	0.20	12.59
JANITORS AND CLEANERS	30	0.29	22.22
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	6930	68.23	N/A
FIRST LINE SUPERVISORS - CONSTRUCTION AND RELATED	20	0.20	33.99
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	400	3.94	10.08
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	30	0.29	6.93
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.10	34.64
ALL OTHER PRODUCTION WORKER SUPERVISORS	30	0.29	7.13
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	360	3.54	3.62

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

STONE, CLAY AND GLASS PRODUCTS
SIC - 32
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE MECHANICS	140	1.38	10.71
REFRACTORY MATERIALS REPAIRERS, EXCEPT BRICK MASONS	20	0.20	28.33
MACHINERY MAINTENANCE WORKERS	20	0.20	43.48
MAINTENANCE REPAIRERS, GENERAL UTILITY	150	1.48	27.77
AUTOMOTIVE MECHANICS	50	0.49	19.03
BUS AND TRUCK MECHANICS AND DIESEL MECHANICS	90	0.89	34.03
MOBILE HEAVY EQUIPMENT MECHANICS	10	0.10	0.00
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.10	0.00
ELECTRICIANS	30	0.29	0.00
BRICK MASONS	10	0.10	11.11
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.10	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.10	0.00
ALL OTHER CONSTRUCTION TRADES WORKERS	150	1.48	49.82
MACHINISTS	90	0.89	8.89
SHEET METAL WORKERS	20	0.20	0.00
PRECISION MOLDERS, SHAPERS, CASTERS AND CARVERS, EXCEPT	240	2.36	16.95
ALL OTHER PRECISION WORKERS	10	0.10	67.58
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	40	0.39	4.87
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	10	0.10	12.85
MACHINE TOOL CUTTING OPERATORS	120	1.18	3.68
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERAT	160	1.57	1.43
MACHINE FORM OPERATORS, METAL AND PLASTICS	90	0.89	16.44
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	10	0.10	40.40
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	50	0.49	2.12
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	10	0.10	0.00
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	30	0.29	0.00
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	50	0.49	29.93
EXTRUDING AND FORMING MACHINE OPERATORS AND TENDERS	10	0.10	7.14
FURNACE, KILN, OVEN, DRIER OR KETTLE OPERATORS AND TEND	240	2.36	14.26
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	10	0.10	34.99
CUTTING AND SLICING MACHINE OPERATORS	90	0.89	16.97
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	50	0.49	39.28
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	50	0.49	19.09
SEPARATING, FILTERING, CLARIFYING, PRECIPITATING AND ST	50	0.49	46.76
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	210	2.07	21.87
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE SET	60	0.59	32.61
PACKAGING AND FILLING MACHINE OPERATORS	170	1.67	31.31
ALL OTHER MACHINE SETTERS	90	0.89	48.71
ALL OTHER MACHINE OPERATORS	70	0.69	34.33
GLAZIERS, MANUFACTURING	50	0.49	30.52
WELDERS AND CUTTERS	50	0.49	20.47

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

STONE, CLAY AND GLASS PRODUCTS
SIC - 32
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
CUTTERS AND TRIMMERS, HAND	10	0.10	22.36
MOLDERS AND CASTERS, HAND	80	0.79	26.83
PAINTING, COATING AND DECORATING WORKERS - HAND	30	0.29	24.13
GRINDING AND POLISHING WORKERS, HAND	170	1.67	23.39
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	130	1.28	32.05
ALL OTHER HAND WORKERS	280	2.75	87.03
PLANT AND SYSTEMS OCCUPATIONS	20	0.20	18.85
TRUCK DRIVERS, HEAVY	1010	9.94	27.68
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	90	0.89	20.30
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
GRADING, DOZING AND SCRAPER OPERATORS	10	0.10	0.00
HOIST AND WINCH OPERATORS	10	0.10	24.49
CRANE AND TOWER OPERATORS	20	0.20	20.72
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	140	1.38	15.43
CONVEYOR OPERATORS AND TENDERS	20	0.20	22.36
OPERATING ENGINEERS	20	0.20	5.56
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	50	0.49	81.73
MECHANIC AND REPAIRER HELPERS	10	0.10	28.74
CONSTRUCTIVE TRADES, EXTRACTIVE WORKER HELPER	80	0.79	25.09
MACHINE FEEDERS AND OFFBEARERS	60	0.59	25.06
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	370	3.64	8.78
HAND PACKERS AND PACKAGERS	50	0.49	21.47
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	590	5.81	7.22

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CONCRETE, GYPSUM AND PLASTER PRODUCTS
SIC - 327
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3280	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	7.01	N/A
FINANCIAL MANAGERS	30	0.92	14.21
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.30	19.99
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.30	31.71
INDUSTRIAL PRODUCTION MANAGERS	40	1.22	23.58
GENERAL MANAGERS AND TOP EXECUTIVES	120	3.66	6.77
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.61	74.96
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	80	2.43	N/A
ACCOUNTANTS AND AUDITORS	10	0.30	19.99
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	70	2.13	59.94
SALES AND RELATED OCCUPATIONS	120	3.65	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.30	31.18
SALES ENGINEERS	10	0.30	34.64
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	60	1.83	13.45
ALL OTHER SALES AND RELATED WORKERS	40	1.22	41.19
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	400	12.20	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.31	19.99
SECRETARIES	50	1.52	13.22
RECEPTIONISTS AND INFORMATION CLERKS	10	0.31	28.28
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	80	2.44	11.17
GENERAL OFFICE CLERK	90	2.74	15.26
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	40	1.22	30.99
PRODUCTION, PLANNING, EXPEDITING CLERKS	90	2.74	27.78
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	0.92	63.47
SERVICE OCCUPATIONS	10	0.31	N/A
ALL OTHER SERVICE WORKERS	10	0.31	39.99
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2440	74.40	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CONCRETE, GYPSUM AND PLASTER PRODUCTS
SIC - 327
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	100	3.05	11.66
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	30	0.92	28.64
MACHINERY MAINTENANCE MECHANICS	40	1.22	21.21
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	1.22	15.75
AUTOMOTIVE MECHANICS	50	1.52	19.43
ALL OTHER PRECISION WORKERS	300	9.15	47.68
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	**	N/A	N/A
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	50	1.52	27.31
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE SET	50	1.52	27.15
ALL OTHER MACHINE OPERATORS	30	0.92	45.97
WELDERS AND CUTTERS	40	1.22	20.04
MOLDERS AND CASTERS, HAND	80	2.44	27.56
ALL OTHER HAND WORKERS	280	8.54	92.77
PLANT AND SYSTEMS OCCUPATIONS	10	0.31	28.28
TRUCK DRIVERS, HEAVY	950	28.96	28.20
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	80	2.44	24.68
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
HOIST AND WINCH OPERATORS	10	0.31	24.49
CRANE AND TOWER OPERATORS	10	0.31	27.63
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	1.52	16.76
CONVEYOR OPERATORS AND TENDERS	20	0.61	22.36
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	50	1.52	83.51
CONSTRUCTIVE TRADES, EXTRACTIVE WORKER HELPER	80	2.44	25.40
MACHINE FEEDERS AND OFFBEARERS	40	1.22	20.55
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	50	1.52	37.21

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS NONMETALLIC MINERAL PRODUCTS
SIC - 329
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	4980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	330	6.62	N/A
FINANCIAL MANAGERS	40	0.80	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.40	0.00
PURCHASING MANAGERS	10	0.20	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	40	0.80	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.20	0.00
INDUSTRIAL PRODUCTION MANAGERS	130	2.61	3.98
GENERAL MANAGERS AND TOP EXECUTIVES	80	1.61	10.80
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	650	13.03	N/A
ACCOUNTANTS AND AUDITORS	40	0.80	0.00
ALL OTHER FINANCIAL SPECIALISTS	40	0.80	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.20	0.00
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	40	0.80	0.00
COST ESTIMATORS	20	0.40	0.00
CHEMICAL ENGINEERS	10	0.20	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	160	3.21	0.64
MECHANICAL ENGINEERS	20	0.40	0.00
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	10	0.20	0.00
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	180	3.61	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.20	0.00
DRAFTERS	10	0.20	0.00
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	10	0.20	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	60	1.21	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.20	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	20	0.40	88.44
SALES AND RELATED OCCUPATIONS	160	3.21	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	40	0.80	0.00
SALES ENGINEERS	20	0.40	0.00
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	60	1.21	1.66
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	30	0.60	23.69
ALL OTHER SALES AND RELATED WORKERS	10	0.20	0.00
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	700	14.08	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS NONMETALLIC MINERAL PRODUCTS
SIC - 329
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	60	1.21	0.00
ADJUSTMENT CLERKS	60	1.21	0.00
SECRETARIES	110	2.21	11.04
RECEPTIONISTS AND INFORMATION CLERKS	10	0.20	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	60	1.21	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	50	1.01	15.32
BILLING, COST AND RATE CLERKS	10	0.20	0.00
GENERAL OFFICE CLERK	90	1.81	1.13
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.20	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.40	0.00
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	10	0.20	0.00
DISPATCHERS - EXCEPT POLICE, FIRE AND AMBULANCE	10	0.20	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	100	2.01	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	40	0.80	2.70
TRAFFIC, SHIPPING AND RECEIVING CLERKS	60	1.21	8.03
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	40	0.80	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.20	0.00
GUARDS AND WATCH GUARDS	20	0.40	13.22
JANITORS AND CLEANERS	10	0.20	0.00
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	3100	62.26	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	210	4.22	3.62
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.40	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	30	0.60	7.99
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	130	2.61	2.08
MACHINERY MAINTENANCE MECHANICS	90	1.81	4.40
REFRACTORY MATERIALS REPAIRERS, EXCEPT BRICK MASONS	10	0.20	0.00
MACHINERY MAINTENANCE WORKERS	10	0.20	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.60	12.87
BUS AND TRUCK MECHANICS AND DIESEL MECHANICS	10	0.20	0.00
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.20	0.00
CARPENTERS	10	0.20	0.00
ELECTRICIANS	30	0.60	0.00
BRICK MASONS	10	0.20	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS NONMETALLIC MINERAL PRODUCTS
SIC - 329
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.20	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.20	0.00
MACHINISTS	80	1.61	0.00
SHEET METAL WORKERS	20	0.40	0.00
PRECISION MOLDERS, SHAPERS, CASTERS AND CARVERS, EXCEPT	170	3.41	9.98
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	40	0.80	5.55
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	10	0.20	12.85
MACHINE TOOL CUTTING OPERATORS	110	2.21	0.00
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERAT	160	3.21	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	70	1.41	22.92
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	10	0.20	40.40
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	50	1.01	2.12
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	10	0.20	0.00
TEXTILE MACHINE SETTERS AND SET-UP OPERATORS	30	0.60	0.00
TEXTILE MACHINE OPERATORS AND TENDERS - WINDING, TWISTING	50	1.01	29.93
EXTRUDING AND FORMING MACHINE OPERATORS AND TENDERS	10	0.20	7.14
FURNACE, KILN, OVEN, DRIER OR KETTLE OPERATORS AND TEND	190	3.82	3.02
CUTTING AND SLICING MACHINE OPERATORS	20	0.40	19.24
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	30	0.60	42.10
SEPARATING, FILTERING, CLARIFYING, PRECIPITATING AND ST	50	1.01	46.76
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	120	2.41	3.81
EXTRUDING, FORMING, PRESSING AND COMPACTING MACHINE SET	10	0.20	48.98
PACKAGING AND FILLING MACHINE OPERATORS	100	2.01	27.53
ALL OTHER MACHINE SETTERS	70	1.41	50.41
WELDERS AND CUTTERS	10	0.20	8.33
GRINDING AND POLISHING WORKERS, HAND	120	2.41	10.29
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	20	0.40	17.45
ALL OTHER HAND WORKERS	10	0.20	0.00
TRUCK DRIVERS, HEAVY	30	0.60	26.72
GRADING, DOZING AND SCRAPER OPERATORS	10	0.20	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	1.01	22.48
OPERATING ENGINEERS	10	0.20	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	**	N/A	N/A
MACHINE FEEDERS AND OFFBEARERS	20	0.40	33.11
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	310	6.23	2.05
HAND PACKERS AND PACKAGERS	30	0.60	12.10
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	450	9.04	6.98

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N/A NOT AVAILABLE.

PRIMARY METAL INDUSTRIES
(SIC 33)

Industry Description

This major group includes establishments engaged in smelting and refining ferrous and nonferrous metals from ore, pig or scrap: in rolling, drawing, and alloying metals; in manufacturing castings and other basic metal products; and in manufacturing nails, spikes, and insulated wire and cable.

Employment Trends

Between 1988 and 1989, this industry's employment declined by 600 jobs, a loss of 4.7 percent.

Occupational Structure

The main occupational group of primary metal workers is maintenance and production with 8,700 or 69 percent of all workers in the primary metals industry. Of the ten largest occupations, six are in maintenance and production representing 5,790 jobs or 67 percent of the total jobs in the maintenance and production category.

TOP TEN OCCUPATIONS

Occupation	Jobs
All Other Precision Workers	1,810
All Other Machine Setters	1,650
All Other Machine Operators	1,400
All Other Managers and Administrators	530
All Other Hand Workers	420
All Other Helpers, Laborers, Movers-Hand	340
All Other Clerical and Administrative Support Workers	270
Traffic, Shipping and Receiving Clerks	190
Industrial Production Managers	170
Bookkeeping, Accounting, Auditing Clerks	170
Freight, Stock and Material Handlers, Hand	170

PRIMARY METAL INDUSTRIES
SIC - 33
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	12680	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1110	8.74	N/A
FINANCIAL MANAGERS	120	0.95	17.30
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	40	0.31	0.87
PURCHASING MANAGERS	40	0.31	1.31
MARKETING, ADVERTISING AND RELATED MANAGERS	60	0.47	7.61
ADMINISTRATIVE SERVICE MANAGERS	20	0.16	0.82
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	130	1.02	42.53
INDUSTRIAL PRODUCTION MANAGERS	170	1.34	40.07
ALL OTHER MANAGERS AND ADMINISTRATORS	530	4.18	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	900	7.09	N/A
ACCOUNTANTS AND AUDITORS	100	0.79	24.19
BUDGET ANALYSTS	10	0.08	0.13
ALL OTHER FINANCIAL SPECIALISTS	20	0.16	0.33
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	70	0.55	6.70
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	20	0.16	0.20
COST ESTIMATORS	50	0.39	3.39
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.08	0.00
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	90	0.71	16.10
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.08	0.00
COMPUTER ENGINEERS	10	0.08	0.24
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	70	0.55	2.04
SAFETY ENGINEERS, EXCEPT MINING	10	0.08	0.00
MECHANICAL ENGINEERS	70	0.55	13.11
ALL OTHER ENGINEERS	10	0.08	0.19
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	50	0.39	1.82
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.08	0.66
DRAFTERS	40	0.31	2.11
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	50	0.39	2.09
CHEMISTS, EXCEPT BIOCHEMISTS	30	0.24	1.04
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH A	50	0.39	7.07
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	10	0.08	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.08	0.00
COMPUTER PROGRAMMERS	10	0.08	0.26
COMPUTER PROGRAMMER AIDES	10	0.08	0.20
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	20	0.16	0.00

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PRIMARY METAL INDUSTRIES
SIC - 33
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	60	0.47	0.00
SALES AND RELATED OCCUPATIONS	360	2.83	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	70	0.55	7.07
SALES ENGINEERS	40	0.31	1.44
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	100	0.79	18.47
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	110	0.87	23.39
ALL OTHER SALES AND RELATED WORKERS	40	0.31	4.13
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1350	10.66	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	80	0.63	13.94
ADJUSTMENT CLERKS	70	0.55	4.98
STENOGRAPHERS	10	0.08	0.13
RECEPTIONISTS AND INFORMATION CLERKS	30	0.24	0.52
TYPISTS	20	0.16	1.02
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.08	0.20
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.16	0.59
FILE CLERKS	10	0.08	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	20	0.16	0.79
PROCUREMENT CLERKS	10	0.08	0.12
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	170	1.34	36.64
PAYROLL AND TIMEKEEPING CLERKS	40	0.31	1.07
BILLING, COST AND RATE CLERKS	20	0.16	0.15
GENERAL OFFICE CLERK	130	1.02	30.64
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.16	0.84
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.24	1.30
ALL OTHER OFFICE MACHINE OPERATORS	10	0.08	0.41
SWITCHBOARD OPERATOR	20	0.16	0.66
PRODUCTION, PLANNING, EXPEDITING CLERKS	90	0.71	6.57
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.08	0.20
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	60	0.47	8.28
TRAFFIC, SHIPPING AND RECEIVING CLERKS	190	1.50	45.78
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	10	0.08	0.21
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	270	2.13	50.22
SERVICE OCCUPATIONS	260	2.05	N/A
FIRST LINE SUPERVISORS - SERVICE	40	0.31	4.98
GUARDS AND WATCH GUARDS	110	0.87	17.04

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PRIMARY METAL INDUSTRIES
SIC - 33
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
JANITORS AND CLEANERS	100	0.79	19.83
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.08	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	8700	68.63	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	60	0.47	4.04
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	30	0.24	0.47
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.08	0.08
PRECISION INSPECTORS, TESTERS, AND GRADERS	110	0.87	25.85
MILLWRIGHTS	10	0.08	0.14
REFRACTORY MATERIALS REPAIRERS, EXCEPT BRICK MASONS	10	0.08	0.05
MACHINERY MAINTENANCE WORKERS	40	0.31	5.78
MAINTENANCE REPAIRERS, GENERAL UTILITY	140	1.10	39.27
AUTOMOTIVE MECHANICS	10	0.08	0.28
CARPENTERS	20	0.16	0.30
ELECTRICIANS	70	0.55	3.98
BRICK MASONS	10	0.08	0.12
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.08	0.21
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	10	0.08	0.00
TOOL AND DIE MAKERS	90	0.71	24.31
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	50	0.39	8.14
PATTERN AND MODEL MAKERS, METAL	20	0.16	0.42
SHEET METAL WORKERS	70	0.55	10.71
PATTERN AND MODEL MAKERS, WOOD	20	0.16	2.25
ALL OTHER PRECISION WORKERS	1810	14.27	N/A
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	30	0.24	3.96
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	10	0.08	0.78
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	10	0.08	0.35
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	40	0.31	7.70
MACHINE TOOL CUTTING OPERATORS	110	0.87	26.19
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	30	0.24	3.32
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATORS	30	0.24	2.73
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	70	0.55	14.94
FORGING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	20	0.16	1.75
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	90	0.71	14.15
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	10	0.08	0.72
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	80	0.63	20.16
WELDING MACHINE SETTERS AND SET-UP OPERATORS	20	0.16	3.32
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	120	0.95	47.71
FOUNDRY MOLD ASSEMBLY AND SHAKEOUT WORKERS	90	0.71	20.88
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	10	0.08	0.37

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PRIMARY METAL INDUSTRIES
SIC - 33
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	30	0.24	2.54
NONELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND	40	0.31	8.98
NONELECTROLYTIC PLATING AND COATING MACHINE OPERATORS	10	0.08	0.90
HEATING EQUIPMENT SETTERS AND SET-UP OPERATORS, METAL	50	0.39	5.20
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	130	1.02	39.13
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.08	0.12
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	30	0.24	3.96
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	30	0.24	3.18
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	60	0.47	15.79
PACKAGING AND FILLING MACHINE OPERATORS	60	0.47	17.55
ALL OTHER MACHINE SETTERS	1650	13.01	N/A
ALL OTHER MACHINE OPERATORS	1400	11.04	N/A
WELDERS AND CUTTERS	100	0.79	29.85
SOLDERERS AND BRAZERS	20	0.16	2.05
METAL POURERS AND CASTERS, BASIC SHAPES	100	0.79	16.15
GRINDING AND POLISHING WORKERS, HAND	150	1.18	32.54
ALL OTHER HAND WORKERS	420	3.31	N/A
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.08	0.11
TRUCK DRIVERS, HEAVY	100	0.79	16.41
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	30	0.24	1.93
CRANE AND TOWER OPERATORS	30	0.24	3.70
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	100	0.79	20.51
CONVEYOR OPERATORS AND TENDERS	10	0.08	0.84
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	0.16	2.31
MECHANIC AND REPAIRER HELPERS	10	0.08	0.43
MACHINE FEEDERS AND OFFBEARERS	100	0.79	15.20
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	170	1.34	42.33
HAND PACKERS AND PACKAGERS	120	0.95	49.60
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	340	2.68	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BLAST FURNACE AND BASIC STEEL PRODUCTS
SIC - 331
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1430	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	120	8.40	N/A
FINANCIAL MANAGERS	20	1.40	18.85
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.70	19.99
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.70	24.99
INDUSTRIAL PRODUCTION MANAGERS	30	2.10	15.15
GENERAL MANAGERS AND TOP EXECUTIVES	50	3.50	7.30
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	60	4.20	N/A
ACCOUNTANTS AND AUDITORS	20	1.40	28.28
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	10	0.70	0.00
MECHANICAL ENGINEERS	10	0.70	23.57
DRAFTERS	10	0.70	20.32
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	10	0.70	0.00
SALES AND RELATED OCCUPATIONS	50	3.50	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.70	19.99
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	1.40	13.92
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	20	1.40	23.38
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	160	11.20	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.70	33.33
SECRETARIES	20	1.40	20.82
TYPISTS	10	0.70	16.66
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	30	2.10	13.86
GENERAL OFFICE CLERK	30	2.10	9.07
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.70	24.99
SWITCHBOARD OPERATOR	10	0.70	39.99
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.70	14.28
TRAFFIC, SHIPPING AND RECEIVING CLERKS	20	1.40	16.66
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.70	34.36

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

BLAST FURNACE AND BASIC STEEL PRODUCTS
SIC - 331
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	10	0.70	N/A
JANITORS AND CLEANERS	10	0.70	33.16
ALL OTHER SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1030	72.00	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	60	4.19	6.41
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.70	34.99
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	20	1.40	24.05
MACHINERY MAINTENANCE MECHANICS	20	1.40	12.29
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	2.10	19.98
CARPENTERS	10	0.70	28.57
ELECTRICIANS	10	0.70	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
TOOL AND DIE MAKERS	40	2.80	25.92
MACHINISTS	20	1.40	22.53
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	20	1.40	25.64
SHEET METAL WORKERS	70	4.89	22.83
ALL OTHER PRECISION WORKERS	20	1.40	58.96
MACHINE TOOL CUTTING OPERATORS	20	1.40	34.10
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.70	45.81
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	60	4.19	20.03
EXTRUDING AND DRAWING MACHINE SETTERS AND SET-UP OPERATOR	110	7.69	19.61
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	70	4.89	6.81
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	60	4.19	28.38
FURNACE OPERATORS AND TENDERS	20	1.40	0.00
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.70	0.00
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	20	1.40	48.52
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	10	0.70	0.00
ALL OTHER MACHINE SETTERS	40	2.80	59.09
ALL OTHER MACHINE OPERATORS	40	2.79	66.51
WELDERS AND CUTTERS	70	4.89	31.20
ALL OTHER HAND WORKERS	10	0.70	69.42
ALL OTHER PLANT AND SYSTEM OPERATORS	**	N/A	N/A
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.70	34.64
CRANE AND TOWER OPERATORS	10	0.70	33.33
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	1.40	22.94
MACHINE FEEDERS AND OFFBEARERS	40	2.79	34.74
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	70	4.89	9.75

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

IRON AND STEEL FOUNDRIES
SIC - 332
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1340	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	120	8.92	N/A
FINANCIAL MANAGERS	10	0.74	0.00
PURCHASING MANAGERS	10	0.74	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.74	19.99
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.74	19.24
INDUSTRIAL PRODUCTION MANAGERS	20	1.49	7.10
GENERAL MANAGERS AND TOP EXECUTIVES	40	2.98	7.06
ALL OTHER MANAGERS AND ADMINISTRATORS	20	1.49	0.00
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	60	4.46	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.74	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.74	0.00
COMPUTER ENGINEERS	10	0.74	40.82
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.74	12.49
MECHANICAL ENGINEERS	10	0.75	19.24
ALL OTHER ENGINEERS	**	N/A	N/A
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	10	0.75	0.00
SALES AND RELATED OCCUPATIONS	30	2.24	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	20	1.49	28.94
ALL OTHER SALES AND RELATED WORKERS	10	0.75	39.99
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	110	8.22	N/A
SECRETARIES	30	2.24	6.92
RECEPTIONISTS AND INFORMATION CLERKS	10	0.75	0.00
TYPISTS	10	0.75	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.75	14.28
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.49	11.64
GENERAL OFFICE CLERK	10	0.75	20.41
TRAFFIC, SHIPPING AND RECEIVING CLERKS	20	1.49	10.82
SERVICE OCCUPATIONS	20	1.50	N/A
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.75	0.00
ALL OTHER SERVICE WORKERS	10	0.75	50.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

IRON AND STEEL FOUNDRIES
SIC - 332
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1000	74.66	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.75	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	60	4.48	5.84
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	20	1.49	41.57
MACHINERY MAINTENANCE MECHANICS	30	2.24	0.00
REFRACTORY MATERIALS REPAIRERS, EXCEPT BRICK MASONS	10	0.75	19.99
MACHINERY MAINTENANCE WORKERS	10	0.75	19.99
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	2.24	7.20
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
ELECTRICIANS	10	0.75	0.00
MACHINISTS	20	1.49	18.70
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	20	1.49	6.23
PATTERN AND MODEL MAKERS, METAL	10	0.75	0.00
ALL OTHER PRECISION METAL WORKERS	**	N/A	N/A
PATTERN AND MODEL MAKERS, WOOD	10	0.75	26.45
PRECISION FOUNDRY MOLD AND CORE MAKERS	220	16.42	10.62
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	10	0.75	46.77
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	10	0.75	33.33
MACHINE TOOL CUTTING OPERATORS	20	1.49	29.64
METAL MOLDING, COREMAKING AND CASTING MACHINE SETTERS	40	2.98	8.10
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	20	1.49	41.21
FOUNDRY MOLD ASSEMBLY AND SHAKEOUT WORKERS	30	2.24	10.09
FURNACE OPERATORS AND TENDERS	20	1.49	10.15
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	10	0.75	21.43
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	20	1.49	27.53
ALL OTHER MACHINE SETTERS	**	N/A	N/A
WELDERS AND CUTTERS	10	0.75	12.49
SOLDERERS AND BRAZERS	10	0.75	46.79
METAL POURERS AND CASTERS, BASIC SHAPES	10	0.75	7.69
GRINDING AND POLISHING WORKERS, HAND	60	4.48	10.03
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	10	0.75	9.09
TRUCK DRIVERS, HEAVY	20	1.49	14.34
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.75	14.28
CRANE AND TOWER OPERATORS	10	0.75	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	1.49	16.60
MACHINE FEEDERS AND OFFBEARERS	50	3.73	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	20	1.49	20.16
HAND PACKERS AND PACKAGERS	20	1.49	0.00
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	110	8.21	10.66

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

NONFERROUS ROLLING AND DRAWING
SIC - 335
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6500	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	580	8.93	N/A
FINANCIAL MANAGERS	60	0.92	14.99
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.31	9.72
PURCHASING MANAGERS	20	0.31	13.60
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.46	14.89
ADMINISTRATIVE SERVICE MANAGERS	10	0.16	17.32
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	90	1.39	31.78
INDUSTRIAL PRODUCTION MANAGERS	80	1.23	14.84
GENERAL MANAGERS AND TOP EXECUTIVES	130	2.00	12.88
ALL OTHER MANAGERS AND ADMINISTRATORS	140	2.15	3.61
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	500	7.75	N/A
ACCOUNTANTS AND AUDITORS	60	0.92	31.18
BUDGET ANALYSTS	10	0.16	12.49
ALL OTHER FINANCIAL SPECIALISTS	20	0.31	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.31	20.75
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.16	6.66
COST ESTIMATORS	30	0.46	20.35
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	40	0.62	34.75
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.16	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	40	0.62	4.76
MECHANICAL ENGINEERS	30	0.46	27.58
ALL OTHER ENGINEERS	10	0.16	17.32
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	50	0.77	6.76
DRAFTERS	20	0.31	19.50
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	40	0.62	6.28
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.16	24.74
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	10	0.16	30.15
COMPUTER PROGRAMMERS	10	0.16	19.99
COMPUTER PROGRAMMER AIDES	10	0.16	48.98
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.15	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	60	0.92	0.00
SALES AND RELATED OCCUPATIONS	230	3.53	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	60	0.92	12.59

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

NONFERROUS ROLLING AND DRAWING
SIC - 335
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SALES ENGINEERS	20	0.31	13.63
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	60	0.92	21.87
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	60	0.92	18.03
ALL OTHER SALES AND RELATED WORKERS	30	0.46	19.61
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	710	10.91	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	40	0.62	13.69
ADJUSTMENT CLERKS	50	0.77	4.53
SECRETARIES	130	2.00	6.39
RECEPTIONISTS AND INFORMATION CLERKS	10	0.15	9.99
TYPISTS	10	0.15	48.41
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.31	14.40
FILE CLERKS	10	0.15	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.15	24.74
PROCUREMENT CLERKS	10	0.15	11.11
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	70	1.08	10.86
PAYROLL AND TIMEKEEPING CLERKS	20	0.31	7.53
BILLING, COST AND RATE CLERKS	10	0.15	9.09
GENERAL OFFICE CLERK	50	0.77	19.38
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.15	7.14
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.15	21.42
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	20	0.31	6.66
PRODUCTION, PLANNING, EXPEDITING CLERKS	60	0.92	5.52
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	40	0.62	18.13
TRAFFIC, SHIPPING AND RECEIVING CLERKS	100	1.54	10.86
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	0.46	19.09
SERVICE OCCUPATIONS	130	2.00	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.31	27.49
GUARDS AND WATCH GUARDS	60	0.92	14.14
JANITORS AND CLEANERS	50	0.77	21.19
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4350	66.88	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	30	0.46	5.24
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	260	4.00	5.91
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.31	8.66
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.15	19.99

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

NONFERROUS ROLLING AND DRAWING
SIC - 335
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.15	10.87
PRECISION INSPECTORS, TESTERS, AND GRADERS	80	1.23	20.67
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	230	3.54	31.80
MACHINERY MAINTENANCE MECHANICS	70	1.08	13.85
MACHINERY MAINTENANCE WORKERS	20	0.31	39.55
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.62	28.85
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
CARPENTERS	10	0.15	0.00
ELECTRICIANS	40	0.62	10.57
BRICK MASONS	10	0.15	48.98
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.15	15.74
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
TOOL AND DIE MAKERS	20	0.31	19.99
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	10	0.15	37.26
ALL OTHER PRECISION METAL WORKERS	140	2.15	49.07
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	20	0.31	37.49
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	10	0.15	48.98
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	10	0.15	21.65
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	10	0.15	45.64
EXTRUDING AND DRAWING MACHINE SETTERS AND SET-UP OPERATOR	800	12.31	8.26
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	160	2.46	41.19
FORGING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	20	0.31	43.87
MACHINE FORM OPERATORS, METAL AND PLASTICS	130	2.00	15.11
WELDING MACHINE SETTERS AND SET-UP OPERATORS	10	0.15	48.98
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	10	0.15	41.57
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	390	6.00	18.99
BOILER OPERATORS AND TENDERS, LOW PRESSURE	10	0.15	48.98
ALL OTHER MACHINE SETTERS	320	4.92	64.51
ALL OTHER MACHINE OPERATORS	660	10.15	13.55
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	210	3.23	18.30
ALL OTHER HAND WORKERS	110	1.69	24.06
TRUCK DRIVERS, HEAVY	50	0.77	4.44
ALL OTHER MOTOR VEHICLE OPERATORS	**	N/A	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	60	0.92	18.23
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	0.31	58.03
MECHANIC AND REPAIRER HELPERS	10	0.15	47.38
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	120	1.85	5.89
HAND PACKERS AND PACKAGES	60	0.92	41.98
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	140	2.15	15.20

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

NONFERROUS FOUNDRIES
SIC - 336
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1540	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	110	7.14	N/A
FINANCIAL MANAGERS	10	0.65	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.65	0.00
PURCHASING MANAGERS	10	0.65	0.00
INDUSTRIAL PRODUCTION MANAGERS	20	1.30	26.30
GENERAL MANAGERS AND TOP EXECUTIVES	60	3.89	10.07
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	50	3.25	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.65	44.72
COST ESTIMATORS	10	0.65	27.95
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	10	0.65	0.00
MECHANICAL ENGINEERS	10	0.65	34.35
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.65	24.74
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	120	7.80	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.65	21.75
ADJUSTMENT CLERKS	10	0.65	24.74
SECRETARIES	20	1.30	31.12
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.30	22.33
GENERAL OFFICE CLERK	20	1.30	36.05
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.65	31.94
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.65	32.77
TRAFFIC, SHIPPING AND RECEIVING CLERKS	20	1.30	17.64
SERVICE OCCUPATIONS	20	1.30	N/A
GUARDS AND WATCH GUARDS	10	0.65	0.00
JANITORS AND CLEANERS	10	0.65	21.75
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1240	80.51	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	50	3.25	18.28
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.65	14.14
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	2.60	14.70

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

NONFERROUS FOUNDRIES
SIC - 336
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE MECHANICS	20	1.30	24.11
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	1.30	35.78
TOOL AND DIE MAKERS	30	1.95	27.15
MACHINISTS	60	3.89	25.59
PRECISION FOUNDRY MOLD AND CORE MAKERS	120	7.79	20.32
ALL OTHER PRECISION WORKERS	20	1.30	71.86
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	40	2.60	33.07
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	20	1.30	34.00
MACHINE TOOL CUTTING OPERATORS	50	3.25	4.30
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.65	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	50	3.24	44.05
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	50	3.24	17.18
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	30	1.95	42.73
METAL MOLDING, COREMAKING AND CASTING MACHINE SETTERS	110	7.14	29.71
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	70	4.54	33.65
FOUNDRY MOLD ASSEMBLY AND SHAKEOUT WORKERS	30	1.95	43.39
FURNACE OPERATORS AND TENDERS	20	1.30	19.99
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	20	1.30	46.66
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	10	0.65	0.00
PACKAGING AND FILLING MACHINE OPERATORS	40	2.60	42.11
ALL OTHER MACHINE SETTERS	20	1.30	79.26
ALL OTHER MACHINE OPERATORS	20	1.30	73.59
METAL POURERS AND CASTERS, BASIC SHAPES	60	3.89	12.59
GRINDING AND POLISHING WORKERS, HAND	90	5.84	12.18
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	80	5.19	30.90
ALL OTHER HAND WORKERS	**	N/A	N/A
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	50	3.25	55.80

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS PRIMARY METAL PRODUCTS
SIC - 339
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1450	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	140	9.65	N/A
FINANCIAL MANAGERS	20	1.38	10.18
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.69	15.71
ADMINISTRATIVE SERVICE MANAGERS	10	0.69	19.99
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.69	0.00
INDUSTRIAL PRODUCTION MANAGERS	20	1.38	6.73
GENERAL MANAGERS AND TOP EXECUTIVES	60	4.13	13.61
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.69	28.28
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	170	11.73	N/A
ACCOUNTANTS AND AUDITORS	10	0.69	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	1.38	6.66
COST ESTIMATORS	10	0.69	0.00
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	30	2.07	14.65
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	20	1.38	0.00
MECHANICAL ENGINEERS	20	1.38	15.30
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	10	0.69	0.00
DRAFTERS	10	0.69	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	20	1.38	21.20
COMPUTER PROGRAMMERS	10	0.69	19.99
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.69	0.00
SALES AND RELATED OCCUPATIONS	30	2.07	N/A
SALES ENGINEERS	10	0.69	16.66
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.69	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.69	31.49
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	180	12.42	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.69	27.66
ADJUSTMENT CLERKS	10	0.69	44.09
SECRETARIES	40	2.76	5.88
RECEPTIONISTS AND INFORMATION CLERKS	10	0.69	19.99
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	10	0.69	7.69

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS PRIMARY METAL PRODUCTS
SIC - 339
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PAYROLL AND TIMEKEEPING CLERKS	10	0.69	14.28
GENERAL OFFICE CLERK	20	1.38	5.88
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.69	9.99
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.69	23.57
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.69	21.75
TRAFFIC, SHIPPING AND RECEIVING CLERKS	40	2.76	9.89
SERVICE OCCUPATIONS	50	3.45	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.69	25.71
GUARDS AND WATCH GUARDS	20	1.38	21.51
JANITORS AND CLEANERS	20	1.38	13.60
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	880	60.68	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.69	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	50	3.45	9.64
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.69	19.99
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	80	5.51	14.13
MACHINERY MAINTENANCE MECHANICS	40	2.76	17.49
MACHINERY MAINTENANCE WORKERS	10	0.69	20.41
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.69	20.20
ELECTRICIANS	20	1.38	11.54
TOOL AND DIE MAKERS	10	0.69	45.81
MACHINISTS	60	4.14	24.20
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.69	39.62
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	20	1.38	39.28
EXTRUDING AND DRAWING MACHINE SETTERS AND SET-UP OPERATOR	10	0.69	39.99
MACHINE FORM OPERATORS, METAL AND PLASTICS	10	0.69	40.40
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	30	2.07	18.53
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	50	3.45	21.77
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	20	1.38	14.69
FOUNDRY MOLD ASSEMBLY AND SHAKEOUT WORKERS	20	1.38	8.24
HEATING EQUIPMENT SETTERS AND SET-UP OPERATORS, METAL	50	3.45	19.99
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	60	4.13	16.52
FURNACE OPERATORS AND TENDERS	60	4.13	29.00
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	**	N/A	N/A
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	10	0.69	45.17
ALL OTHER MACHINE SETTERS	20	1.38	58.29
ALL OTHER MACHINE OPERATORS	60	4.13	36.06
WELDERS AND CUTTERS	20	1.38	39.52

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS PRIMARY METAL PRODUCTS
SIC - 339
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SOLDERERS AND BRAZERS	10	0.69	22.26
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	10	0.69	49.69
TRUCK DRIVERS, HEAVY	20	1.38	21.65
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	1.38	20.72
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	1.38	52.38
MACHINE FEEDERS AND OFFBEARERS	10	0.69	28.28
HAND PACKERS AND PACKAGERS	20	1.38	28.17
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	20	1.38	36.21

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED METAL PRODUCTS
(SIC 34)

Industry Description

This major group includes establishments engaged in fabricating ferrous and nonferrous metal products, such as metal cans, tinware, handtools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stamping, ordnance (except vehicle and guided missiles), and a variety of metal and wire products.

Employment Trends

Between 1988 and 1989, employment in this major group posted a loss of 1,800 jobs, representing a decrease of 4.0 percent.

Occupational Structure

Jobs in the production, construction and maintenance occupational category represent 70 percent of the total industry employment. Nine out of the top ten ranked occupations fall within the production and maintenance category with 13,270 jobs or 44 percent of the jobs in this category.

TOP TEN OCCUPATIONS

Occupation	Jobs
Assemblers and Fabricators-except Machine, Electrical	2,270
Machinists	2,090
All Other Machine Operators	1,500
Sheet Metal Workers	1,430
First Line Supervisors- Production and Related	1,300
Hand Packers and Packagers	1,290
General Managers and Top Executives	1,250
Machine Form Operators, Metal and Plastic	1,220
Precision Inspectors, Testers, and Graders	1,200
All Other Machine Setters	970

FABRICATED METAL PRODUCTS
SIC - 34
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	43470	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3410	7.85	N/A
FINANCIAL MANAGERS	440	1.01	12.26
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	120	0.28	14.14
PURCHASING MANAGERS	90	0.21	12.19
MARKETING, ADVERTISING AND RELATED MANAGERS	290	0.67	13.85
ADMINISTRATIVE SERVICE MANAGERS	100	0.23	13.95
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	250	0.57	11.65
INDUSTRIAL PRODUCTION MANAGERS	660	1.52	8.94
GENERAL MANAGERS AND TOP EXECUTIVES	1250	2.88	6.37
ALL OTHER MANAGERS AND ADMINISTRATORS	210	0.48	29.86
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	3540	8.14	N/A
ACCOUNTANTS AND AUDITORS	280	0.64	11.79
BUDGET ANALYSTS	30	0.07	3.22
ALL OTHER FINANCIAL SPECIALISTS	60	0.14	29.25
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	290	0.67	11.01
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	50	0.11	5.44
COST ESTIMATORS	230	0.53	13.87
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.14	10.38
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	70	0.16	13.50
CIVIL ENGINEERS, INCLUDING TRAFFIC ENGINEERS	10	0.02	8.33
ELECTRICAL AND ELECTRONIC ENGINEERS	40	0.09	5.89
COMPUTER ENGINEERS	40	0.09	12.26
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	260	0.60	6.62
SAFETY ENGINEERS, EXCEPT MINING	30	0.07	9.09
MECHANICAL ENGINEERS	590	1.36	10.49
ALL OTHER ENGINEERS	120	0.28	19.51
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	60	0.14	3.08
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.05	30.74
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	140	0.32	17.90
DRAFTERS	410	0.94	10.87
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	190	0.44	10.74
PHYSICAL SCIENTISTS	30	0.07	4.42
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	140	0.32	5.20
COMPUTER PROGRAMMERS	50	0.11	13.31
COMPUTER PROGRAMMER AIDES	10	0.02	22.77
ALL OTHER COMPUTER SCIENTISTS	40	0.09	25.62

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED METAL PRODUCTS
SIC - 34
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	60	0.14	5.65
DESIGNERS, EXCEPT INTERIOR DESIGNERS	30	0.07	12.68
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	200	0.46	4.18
SALES AND RELATED OCCUPATIONS	950	2.17	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	110	0.25	20.60
SALES ENGINEERS	50	0.11	31.45
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	180	0.41	11.34
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	450	1.03	20.63
ALL OTHER SALES AND RELATED WORKERS	160	0.37	27.67
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	4780	10.99	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	200	0.46	10.87
ADJUSTMENT CLERKS	130	0.30	12.02
SECRETARIES	860	1.98	7.98
RECEPTIONISTS AND INFORMATION CLERKS	60	0.14	18.98
TYPISTS	60	0.14	17.25
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.02	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	60	0.14	7.17
FILE CLERKS	40	0.09	4.54
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	100	0.23	20.73
PROCUREMENT CLERKS	40	0.09	7.32
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	690	1.59	12.19
PAYROLL AND TIMEKEEPING CLERKS	80	0.18	9.42
BILLING, COST AND RATE CLERKS	50	0.11	22.75
GENERAL OFFICE CLERK	610	1.40	13.57
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	60	0.14	15.12
DATA ENTRY KEYERS, EXCEPT COMPOSING	90	0.21	14.69
ALL OTHER OFFICE MACHINE OPERATORS	20	0.05	0.00
SWITCHBOARD OPERATOR	70	0.16	15.43
PRODUCTION, PLANNING, EXPEDITING CLERKS	450	1.03	24.08
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	340	0.78	8.32
TRAFFIC, SHIPPING AND RECEIVING CLERKS	650	1.50	11.89
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	110	0.25	24.34
SERVICE OCCUPATIONS	600	1.39	N/A
FIRST LINE SUPERVISORS - SERVICE	90	0.21	26.73
GUARDS AND WATCH GUARDS	200	0.46	5.11

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED METAL PRODUCTS
SIC - 34
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
JANITORS AND CLEANERS	250	0.58	14.28
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	30	0.07	22.91
ALL OTHER SERVICE WORKERS	30	0.07	4.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	30190	69.46	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	100	0.23	12.36
FIRST LINE SUPERVISORS - CONSTRUCTION AND RELATED	10	0.02	10.88
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	1300	2.99	9.58
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	290	0.67	2.03
ALL OTHER PRODUCTION WORKER SUPERVISORS	210	0.48	11.98
PRECISION INSPECTORS, TESTERS, AND GRADERS	1200	2.76	4.68
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	900	2.07	11.26
MACHINERY MAINTENANCE MECHANICS	710	1.63	7.96
MILLWRIGHTS	80	0.18	0.00
MACHINERY MAINTENANCE WORKERS	110	0.25	8.68
MAINTENANCE REPAIRERS, GENERAL UTILITY	340	0.78	13.48
AUTOMOTIVE MECHANICS	10	0.02	0.00
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	20	0.05	11.76
CARPENTERS	90	0.21	22.38
ELECTRICIANS	220	0.51	2.47
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	20	0.05	6.43
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	150	0.35	0.66
TOOL AND DIE MAKERS	600	1.38	12.57
MACHINISTS	2090	4.81	16.71
PATTERN AND MODEL MAKERS, METAL	60	0.14	12.78
PRECISION LAYOUT WORKERS, METAL	260	0.60	20.51
SHEET METAL WORKERS	1430	3.29	17.60
BOILERMAKERS	60	0.14	0.00
PRECISION FOUNDRY MOLD AND CORE MAKERS	60	0.14	27.90
ALL OTHER PRECISION WORKERS	660	1.52	44.56
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	50	0.11	24.30
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	550	1.26	16.77
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	180	0.41	21.54
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	80	0.18	31.32
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	270	0.62	23.86
MACHINE TOOL CUTTING OPERATORS	890	2.05	22.56
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	420	0.97	22.86
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	120	0.28	16.91
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	80	0.18	11.40
FORGING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	170	0.39	14.45

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N/A NOT AVAILABLE.

FABRICATED METAL PRODUCTS
SIC - 34
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE FORM OPERATORS, METAL AND PLASTICS	1220	2.81	18.02
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	860	1.98	8.42
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	210	0.48	30.57
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	230	0.53	30.16
WELDING MACHINE SETTERS AND SET-UP OPERATORS	210	0.48	27.31
WELDING MACHINE OPERATORS AND TENDERS	290	0.67	24.33
SOLDERING AND BRAZING MACHINE SETTERS AND SET-UP OPERATOR	20	0.05	20.22
SOLDERING AND BRAZING MACHINE OPERATORS AND TENDERS	20	0.05	34.20
METAL FABRICATORS, STRUCTURAL METAL PRODUCTS	760	1.75	18.31
METAL MOLDING, COREMAKING AND CASTING MACHINE SETTERS	40	0.09	31.36
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	500	1.15	19.30
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	380	0.87	19.95
NONELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND	130	0.30	25.02
HEATING EQUIPMENT SETTERS AND SET-UP OPERATORS, METAL	80	0.18	3.49
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	670	1.54	5.56
HEATERS, METAL AND PLASTIC	20	0.05	5.26
PRINTING PRESS MACHINE SETTERS AND SET-UP OPERATORS	10	0.02	0.00
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	270	0.62	24.31
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	470	1.08	21.72
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	30	0.07	34.61
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	220	0.51	6.45
ALL OTHER MACHINE SETTERS	970	2.23	44.36
ALL OTHER MACHINE OPERATORS	1500	3.45	34.54
PRECISION FITTERS, STRUCTURAL METAL	120	0.28	22.20
GLAZIERS, MANUFACTURING	20	0.05	34.61
WELDERS AND CUTTERS	680	1.56	15.74
GRINDING AND POLISHING WORKERS, HAND	400	0.92	28.43
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	2270	5.22	15.66
ALL OTHER HAND WORKERS	290	0.67	54.37
PLANT AND SYSTEMS OCCUPATIONS	40	0.09	5.08
TRUCK DRIVERS, HEAVY	180	0.41	24.43
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	170	0.39	22.42
ALL OTHER TRANSPORTATION WORKERS	20	0.05	53.02
CRANE AND TOWER OPERATORS	40	0.09	3.82
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	330	0.76	10.01
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	0.05	16.53
MECHANIC AND REPAIRER HELPERS	40	0.09	17.63
CONSTRUCTIVE TRADES, EXTRACTIVE WORKER HELPER	30	0.07	5.24
MACHINE FEEDERS AND OFFBEARERS	100	0.23	34.05
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	660	1.52	11.66
HAND PACKERS AND PACKAGERS	1290	2.97	16.31

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED METAL PRODUCTS
SIC - 34
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	590	1.36	23.49

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CUTLERY, HANDTOOLS AND HARDWARE
SIC - 342
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	8190	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	800	9.77	N/A
FINANCIAL MANAGERS	80	0.98	7.69
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	40	0.49	10.10
PURCHASING MANAGERS	10	0.12	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	120	1.47	9.26
ADMINISTRATIVE SERVICE MANAGERS	10	0.12	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	100	1.22	6.20
INDUSTRIAL PRODUCTION MANAGERS	190	2.32	7.77
GENERAL MANAGERS AND TOP EXECUTIVES	160	1.95	11.26
ALL OTHER MANAGERS AND ADMINISTRATORS	90	1.10	53.00
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	900	11.03	N/A
ACCOUNTANTS AND AUDITORS	50	0.61	11.69
BUDGET ANALYSTS	10	0.12	0.00
ALL OTHER FINANCIAL SPECIALISTS	20	0.25	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	40	0.49	8.57
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	30	0.37	0.00
COST ESTIMATORS	10	0.12	15.71
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.25	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.25	0.00
COMPUTER ENGINEERS	20	0.25	9.99
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	30	0.37	12.28
MECHANICAL ENGINEERS	160	1.95	3.26
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	20	0.25	10.52
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.12	24.84
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	50	0.61	8.83
DRAFTERS	40	0.49	10.52
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.25	27.00
PHYSICAL SCIENTISTS	20	0.25	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	90	1.10	0.00
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	20	0.25	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.12	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	210	2.56	14.08
SALES AND RELATED OCCUPATIONS	160	1.95	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.12	8.33

1 SUMMED PARTS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CUTLERY, HANDTOOLS AND HARDWARE
SIC - 342
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	90	1.10	18.81
ALL OTHER SALES AND RELATED WORKERS	60	0.73	24.93
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1130	13.79	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	30	0.37	5.77
ADJUSTMENT CLERKS	70	0.86	3.65
SECRETARIES	210	2.56	4.87
RECEPTIONISTS AND INFORMATION CLERKS	10	0.12	19.24
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.24	0.00
FILE CLERKS	30	0.37	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	20	0.24	7.85
PROCUREMENT CLERKS	20	0.24	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	80	0.98	17.05
PAYROLL AND TIMEKEEPING CLERKS	30	0.37	0.00
GENERAL OFFICE CLERK	90	1.10	14.52
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	30	0.37	14.40
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.24	12.02
ALL OTHER OFFICE MACHINE OPERATORS	10	0.12	0.00
SWITCHBOARD OPERATOR	10	0.12	22.22
PRODUCTION, PLANNING, EXPEDITING CLERKS	110	1.34	34.66
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	160	1.95	3.98
TRAFFIC, SHIPPING AND RECEIVING CLERKS	110	1.34	18.51
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	70	0.86	20.05
SERVICE OCCUPATIONS	110	1.34	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.12	34.99
GUARDS AND WATCH GUARDS	20	0.24	13.63
JANITORS AND CLEANERS	50	0.61	10.18
ALL OTHER SERVICE WORKERS	30	0.37	10.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	5090	62.12	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.24	26.51
FIRST LINE SUPERVISORS - CONSTRUCTION AND RELATED	10	0.12	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	190	2.32	22.60
PRECISION INSPECTORS, TESTERS, AND GRADERS	110	1.34	19.01
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	250	3.05	13.66
MACHINERY MAINTENANCE MECHANICS	220	2.69	3.82
MILLWRIGHTS	10	0.12	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

CUTLERY, HANDTOOLS AND HARDWARE
SIC - 342
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE WORKERS	10	0.12	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.37	21.85
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	20	0.24	11.76
CARPENTERS	10	0.12	12.85
ELECTRICIANS	30	0.37	3.33
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.12	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
TOOL AND DIE MAKERS	50	0.61	19.01
MACHINISTS	520	6.35	23.87
PATTERN AND MODEL MAKERS, METAL	40	0.49	13.02
ALL OTHER PRECISION WORKERS	300	3.66	61.21
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	30	0.37	22.85
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	120	1.47	13.19
MACHINE TOOL CUTTING OPERATORS	120	1.47	26.08
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	50	0.61	31.17
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	20	0.24	0.00
EXTRUDING AND DRAWING MACHINE SETTERS AND SET-UP OPERATOR	20	0.24	0.00
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	60	0.73	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	440	5.37	8.07
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	20	0.24	0.00
WELDING MACHINE SETTERS AND SET-UP OPERATORS	30	0.37	23.27
SOLDERING AND BRAZING MACHINE SETTERS AND SET-UP OPERATOR	10	0.12	12.49
HEATING EQUIPMENT SETTERS AND SET-UP OPERATORS, METAL	50	0.61	5.65
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	110	1.34	31.08
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATOR	10	0.12	0.00
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	20	0.24	7.21
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	40	0.49	13.92
ALL OTHER MACHINE SETTERS	310	3.79	60.55
ALL OTHER MACHINE OPERATORS	380	4.64	47.15
PRECISION FITTERS, STRUCTURAL METAL	10	0.12	0.00
ALL OTHER PRECISION METAL ASSEMBLERS	20	0.24	0.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	370	4.52	29.41
ALL OTHER HAND WORKERS	120	1.47	63.51
PLANT AND SYSTEMS OCCUPATIONS	20	0.24	0.00
ALL OTHER TRANSPORTATION WORKERS	10	0.12	49.69
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.12	17.32
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	30	0.37	20.37
HAND PACKERS AND PACKAGERS	810	9.89	13.48
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	20	0.24	89.08

1 SUMMED PARTS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PLUMBING AND HEATING, EXCEPT ELECTRIC
SIC - 343
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1240	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	8.04	N/A
FINANCIAL MANAGERS	10	0.80	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.80	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.80	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	20	1.61	0.00
INDUSTRIAL PRODUCTION MANAGERS	10	0.80	13.33
GENERAL MANAGERS AND TOP EXECUTIVES	40	3.23	4.87
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	230	18.51	N/A
ACCOUNTANTS AND AUDITORS	10	0.80	12.49
ALL OTHER FINANCIAL SPECIALISTS	10	0.80	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.80	0.00
COST ESTIMATORS	10	0.80	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.80	0.00
COMPUTER ENGINEERS	10	0.80	0.00
MECHANICAL ENGINEERS	40	3.23	0.00
ALL OTHER ENGINEERS	20	1.61	0.00
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	10	0.80	0.00
DRAFTERS	50	4.03	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.81	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.81	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	30	2.42	0.00
SALES AND RELATED OCCUPATIONS	70	5.64	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	20	1.61	0.00
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.81	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	20	1.61	17.67
ALL OTHER SALES AND RELATED WORKERS	20	1.61	0.00
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	160	12.93	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.81	10.87
ADJUSTMENT CLERKS	10	0.81	0.00
SECRETARIES	40	3.23	0.00
FILE CLERKS	10	0.81	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PLUMBING AND HEATING, EXCEPT ELECTRIC
SIC - 343
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.61	13.46
BILLING, COST AND RATE CLERKS	10	0.81	0.00
GENERAL OFFICE CLERK	10	0.81	31.62
SWITCHBOARD OPERATOR	10	0.81	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	10	0.81	40.65
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.81	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	20	1.61	0.00
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	20	1.61	N/A
JANITORS AND CLEANERS	20	1.61	7.85
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	660	53.27	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	50	4.03	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	3.23	44.75
MACHINERY MAINTENANCE MECHANICS	20	1.61	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.81	17.67
ELECTRICIANS	10	0.81	0.00
TOOL AND DIE MAKERS	10	0.81	0.00
MACHINISTS	20	1.61	43.30
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	10	0.81	0.00
PRECISION FOUNDRY MOLD AND CORE MAKERS	20	1.61	0.00
ALL OTHER PRECISION WORKERS	50	4.03	23.91
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	40	3.23	0.00
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	10	0.81	0.00
MACHINE TOOL CUTTING OPERATORS	10	0.81	0.00
EXTRUDING AND DRAWING MACHINE SETTERS AND SET-UP OPERATOR	10	0.81	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	10	0.81	16.66
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	50	4.03	0.00
SOLDERING AND BRAZING MACHINE OPERATORS AND TENDERS	10	0.81	0.00
FURNACE OPERATORS AND TENDERS	10	0.81	0.00
ALL OTHER MACHINE SETTERS	10	0.81	0.00
ALL OTHER MACHINE OPERATORS	**	N/A	N/A
WELDERS AND CUTTERS	10	0.81	0.00
GRINDING AND POLISHING WORKERS, HAND	20	1.61	9.09
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	110	8.87	1.65
TRUCK DRIVERS, HEAVY	10	0.81	39.99
ALL OTHER TRANSPORTATION WORKERS	20	1.61	69.60

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

PLUMBING AND HEATING, EXCEPT ELECTRIC
SIC - 343
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
CRANE AND TOWER OPERATORS	10	0.81	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.81	0.00
MECHANIC AND REPAIRER HELPERS	10	0.81	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	10	0.81	28.28
HAND PACKERS AND PACKAGERS	20	1.61	26.50
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	30	2.42	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED STRUCTURAL METAL PRODUCTS
SIC - 344
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	8490	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	750	8.82	N/A
FINANCIAL MANAGERS	140	1.65	9.55
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.23	34.10
PURCHASING MANAGERS	30	0.35	11.53
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.35	10.69
ADMINISTRATIVE SERVICE MANAGERS	10	0.12	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	0.35	14.28
INDUSTRIAL PRODUCTION MANAGERS	100	1.18	10.52
GENERAL MANAGERS AND TOP EXECUTIVES	390	4.59	5.40
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	600	7.07	N/A
ACCOUNTANTS AND AUDITORS	60	0.71	19.39
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	60	0.71	12.80
COST ESTIMATORS	110	1.30	10.64
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
COMPUTER ENGINEERS	10	0.12	28.28
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.12	19.24
MECHANICAL ENGINEERS	80	0.94	22.56
ALL OTHER ENGINEERS	**	N/A	N/A
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	20	0.23	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.23	48.11
DRAFTERS	160	1.88	9.30
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	30	0.35	7.40
PHYSICAL SCIENTISTS	10	0.12	0.00
COMPUTER PROGRAMMERS	10	0.12	33.52
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	10	0.12	34.35
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.12	11.78
SALES AND RELATED OCCUPATIONS	180	2.12	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.12	19.24
SALES ENGINEERS	10	0.12	28.74
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	30	0.35	18.84
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	120	1.41	18.47
ALL OTHER SALES AND RELATED WORKERS	10	0.12	34.64

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED STRUCTURAL METAL PRODUCTS
SIC - 344
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ELECTRICIANS	30	0.35	3.84
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.12	15.71
TOOL AND DIE MAKERS	40	0.47	36.82
MACHINISTS	330	3.89	21.48
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	80	0.94	21.66
PRECISION LAYOUT WORKERS, METAL	220	2.59	15.49
SHEET METAL WORKERS	1280	15.08	9.60
ALL OTHER PRECISION WORKERS	70	0.82	61.83
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	20	0.24	37.20
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	30	0.35	43.00
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	30	0.35	22.87
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	90	1.06	24.44
MACHINE TOOL CUTTING OPERATORS	140	1.65	28.81
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	110	1.30	17.66
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	140	1.65	12.67
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	60	0.71	16.95
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	10	0.12	30.76
MACHINE FORM OPERATORS, METAL AND PLASTICS	110	1.30	18.60
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	40	0.47	37.57
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	30	0.35	39.19
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	40	0.47	43.36
WELDING MACHINE SETTERS AND SET-UP OPERATORS	90	1.06	21.83
WELDING MACHINE OPERATORS AND TENDERS	190	2.24	22.14
METAL FABRICATORS, STRUCTURAL METAL PRODUCTS	650	7.66	12.82
FURNACE OPERATORS AND TENDERS	20	0.24	8.24
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	40	0.47	19.48
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	50	0.59	24.69
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	70	0.82	19.73
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	10	0.12	33.33
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	30	0.35	8.57
PACKAGING AND FILLING MACHINE OPERATORS	30	0.35	29.46
ALL OTHER MACHINE SETTERS	10	0.12	56.56
ALL OTHER MACHINE OPERATORS	20	0.24	62.46
PRECISION FITTERS, STRUCTURAL METAL	70	0.82	14.70
GLAZIERS, MANUFACTURING	20	0.24	34.61
WELDERS AND CUTTERS	470	5.54	11.65
GRINDING AND POLISHING WORKERS, HAND	70	0.82	18.83
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	330	3.89	10.55
ALL OTHER HAND WORKERS	10	0.12	65.80
TRUCK DRIVERS, HEAVY	90	1.06	11.79
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	60	0.71	18.67

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED STRUCTURAL METAL PRODUCTS
SIC - 344
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	910	10.70	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	30	0.35	26.93
ADJUSTMENT CLERKS	20	0.23	8.69
SECRETARIES	220	2.59	8.13
RECEPTIONISTS AND INFORMATION CLERKS	20	0.23	20.20
TYPISTS	10	0.12	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.12	14.28
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.12	20.32
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	180	2.12	9.46
PAYROLL AND TIMEKEEPING CLERKS	20	0.23	12.24
BILLING, COST AND RATE CLERKS	20	0.23	16.53
GENERAL OFFICE CLERK	130	1.53	14.10
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.12	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.12	33.33
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	20	0.23	14.90
PRODUCTION, PLANNING, EXPEDITING CLERKS	50	0.59	13.29
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	40	0.47	16.83
TRAFFIC, SHIPPING AND RECEIVING CLERKS	100	1.18	11.92
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.12	42.85
SERVICE OCCUPATIONS	70	0.82	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.23	31.97
GUARDS AND WATCH GUARDS	10	0.12	0.00
JANITORS AND CLEANERS	40	0.47	14.72
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	5980	70.47	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.12	24.99
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	260	3.06	6.67
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.12	24.74
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.12	28.28
PRECISION INSPECTORS, TESTERS, AND GRADERS	40	0.47	17.71
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	50	0.59	15.99
MACHINERY MAINTENANCE MECHANICS	30	0.35	14.62
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.47	16.32
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
CARPENTERS	10	0.12	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

FABRICATED STRUCTURAL METAL PRODUCTS
SIC - 344
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.24	20.82
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	**	N/A	N/A
MECHANIC AND REPAIRER HELPERS	10	0.12	9.99
CONSTRUCTIVE TRADES, EXTRACTIVE WORKER HELPER	20	0.24	5.89
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	70	0.82	20.18
HAND PACKERS AND PACKAGERS	50	0.59	31.43
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	110	1.30	26.67

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SCREW MACHINE PRODUCTS, BOLTS, ETC.
SIC - 345
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	2130	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	210	9.85	N/A
FINANCIAL MANAGERS	30	1.41	8.44
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.47	43.58
INDUSTRIAL PRODUCTION MANAGERS	50	2.34	5.44
GENERAL MANAGERS AND TOP EXECUTIVES	110	5.16	3.33
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.47	63.88
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	70	3.29	N/A
ACCOUNTANTS AND AUDITORS	10	0.47	11.78
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.94	10.82
COST ESTIMATORS	10	0.47	13.33
MECHANICAL ENGINEERS	10	0.47	10.10
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	20	0.94	54.30
SALES AND RELATED OCCUPATIONS	30	1.41	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	30	1.41	12.06
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	260	12.21	N/A
SECRETARIES	40	1.88	7.64
RECEPTIONISTS AND INFORMATION CLERKS	10	0.47	23.57
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	60	2.82	6.67
PAYROLL AND TIMEKEEPING CLERKS	10	0.47	28.28
BILLING, COST AND RATE CLERKS	10	0.47	19.99
GENERAL OFFICE CLERK	30	1.41	10.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.94	16.63
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	20	0.94	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	50	2.34	6.80
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.47	66.33
SERVICE OCCUPATIONS	40	1.88	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.47	44.72
JANITORS AND CLEANERS	30	1.41	18.43
ALL OTHER SERVICE WORKERS	**	N/A	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SCREW MACHINE PRODUCTS, BOLTS, ETC.
SIC - 345
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1520	71.36	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	80	3.75	8.43
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.47	19.99
PRECISION INSPECTORS, TESTERS, AND GRADERS	10	0.47	15.38
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	1.88	11.17
MACHINERY MAINTENANCE MECHANICS	10	0.47	18.18
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.47	18.84
TOOL AND DIE MAKERS	40	1.88	6.97
MACHINISTS	320	15.02	10.76
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	40	1.88	16.66
ALL OTHER PRECISION METAL WORKERS	**	N/A	N/A
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	180	8.45	12.85
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	60	2.81	8.51
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	10	0.47	0.00
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	20	0.94	22.32
MACHINE TOOL CUTTING OPERATORS	270	12.67	8.41
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.47	47.95
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	20	0.94	16.53
MACHINE FORM OPERATORS, METAL AND PLASTICS	120	5.63	24.00
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	20	0.94	29.05
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	30	1.41	11.43
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	30	1.41	26.08
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	10	0.47	44.72
PACKAGING AND FILLING MACHINE OPERATORS	10	0.47	46.39
ALL OTHER MACHINE SETTERS	10	0.47	55.27
ALL OTHER MACHINE OPERATORS	10	0.47	66.33
WELDERS AND CUTTERS	10	0.47	42.49
GRINDING AND POLISHING WORKERS, HAND	20	0.94	32.78
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	30	1.41	13.35
ALL OTHER HAND WORKERS	**	N/A	N/A
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.47	12.49
MACHINE FEEDERS AND OFFBEARERS	40	1.88	12.67
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	10	0.47	15.97
HAND PACKERS AND PACKAGERS	20	0.94	14.43
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.47	37.79

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METAL FORGINGS AND STAMPINGS
SIC - 346
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	5050	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	330	6.52	N/A
FINANCIAL MANAGERS	30	0.59	15.38
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.39	9.62
PURCHASING MANAGERS	10	0.20	17.32
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.59	8.57
ADMINISTRATIVE SERVICE MANAGERS	10	0.20	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	0.59	10.00
INDUSTRIAL PRODUCTION MANAGERS	100	1.98	8.77
GENERAL MANAGERS AND TOP EXECUTIVES	100	1.98	9.49
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	450	8.87	N/A
ACCOUNTANTS AND AUDITORS	50	0.99	7.48
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	40	0.79	16.95
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	**	N/A	N/A
COST ESTIMATORS	30	0.59	14.39
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.39	0.00
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	20	0.39	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	30	0.59	6.41
MECHANICAL ENGINEERS	110	2.18	7.96
ALL OTHER ENGINEERS	**	N/A	N/A
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	20	0.39	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	30	0.59	0.00
DRAFTERS	10	0.20	33.52
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.20	0.00
PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECHNOLOGISTS	10	0.20	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.39	7.07
COMPUTER PROGRAMMERS	10	0.20	20.20
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	20	0.39	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	20	0.39	18.16
SALES AND RELATED OCCUPATIONS	60	1.19	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.20	22.36
SALES ENGINEERS	10	0.20	28.28
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	30	0.59	24.84

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METAL FORGINGS AND STAMPINGS
SIC - 346
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SALES AND RELATED WORKERS	10	0.20	48.78
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	520	10.30	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	60	1.19	4.48
ADJUSTMENT CLERKS	10	0.20	15.74
SECRETARIES	80	1.58	11.34
RECEPTIONISTS AND INFORMATION CLERKS	10	0.20	14.28
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.20	14.28
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	0.59	13.86
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	60	1.19	18.94
PAYROLL AND TIMEKEEPING CLERKS	10	0.20	18.84
BILLING, COST AND RATE CLERKS	10	0.20	20.20
GENERAL OFFICE CLERK	40	0.79	16.20
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.20	13.32
ALL OTHER OFFICE MACHINE OPERATORS	10	0.20	0.00
SWITCHBOARD OPERATOR	10	0.20	12.85
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.39	39.74
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	40	0.79	11.76
TRAFFIC, SHIPPING AND RECEIVING CLERKS	100	1.98	9.61
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.20	24.05
SERVICE OCCUPATIONS	60	1.19	N/A
GUARDS AND WATCH GUARDS	20	0.40	0.00
JANITORS AND CLEANERS	30	0.59	10.49
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.20	10.10
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	3630	71.93	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.40	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	240	4.75	6.38
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.20	34.64
PRECISION INSPECTORS, TESTERS, AND GRADERS	90	1.78	9.50
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	200	3.96	3.85
MACHINERY MAINTENANCE MECHANICS	70	1.39	12.47
MILLWRIGHTS	60	1.19	0.00
MACHINERY MAINTENANCE WORKERS	30	0.59	4.41
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.79	22.01
ELECTRICIANS	20	0.40	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	40	0.79	0.00

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METAL FORGINGS AND STAMPINGS
SIC - 346
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
TOOL AND DIE MAKERS	370	7.33	7.32
MACHINISTS	140	2.77	21.12
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	20	0.40	40.68
PATTERN AND MODEL MAKERS, METAL	20	0.40	0.00
ALL OTHER PRECISION WORKERS	120	2.38	73.47
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	20	0.40	8.31
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	20	0.40	20.39
MACHINE TOOL CUTTING OPERATORS	70	1.39	27.46
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	210	4.16	19.70
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	70	1.39	25.78
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	30	0.59	15.56
FORGING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	90	1.78	10.59
MACHINE FORM OPERATORS, METAL AND PLASTICS	360	7.13	18.76
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	30	0.59	27.56
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	70	1.39	15.56
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	90	1.78	16.70
WELDING MACHINE SETTERS AND SET-UP OPERATORS	60	1.19	29.42
WELDING MACHINE OPERATORS AND TENDERS	40	0.79	0.00
SOLDERING AND BRAZING MACHINE SETTERS AND SET-UP OPERATOR	10	0.20	31.94
METAL MOLDING, COREMAKING AND CASTING MACHINE SETTERS	10	0.20	0.00
HEATING EQUIPMENT SETTERS AND SET-UP OPERATORS, METAL	30	0.59	0.00
FURNACE OPERATORS AND TENDERS	30	0.59	29.62
HEATERS, METAL AND PLASTIC	20	0.40	0.00
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	110	2.18	44.97
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	40	0.79	23.36
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	20	0.40	43.74
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	10	0.20	45.81
ALL OTHER MACHINE SETTERS	**	N/A	N/A
ALL OTHER MACHINE OPERATORS	120	2.38	30.91
GRINDING AND POLISHING WORKERS, HAND	30	0.59	36.81
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	130	2.57	14.70
ALL OTHER HAND WORKERS	30	0.59	63.06
PLANT AND SYSTEMS OCCUPATIONS	20	0.40	0.00
TRUCK DRIVERS, HEAVY	10	0.20	46.29
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	0.40	27.34
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
CRANE AND TOWER OPERATORS	10	0.20	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.40	17.16
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.20	18.89
MECHANIC AND REPAIRER HELPERS	10	0.20	38.49

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METAL FORGINGS AND STAMPINGS
SIC - 346
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE FEEDERS AND OFFBEARERS	10	0.20	49.69
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	40	0.79	34.18
HAND PACKERS AND PACKAGERS	70	1.39	18.61
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	170	3.37	45.40

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METAL SERVICES, NEC
SIC - 347
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR
ALL OCCUPATIONS	4280	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	320	7.48	N/A
FINANCIAL MANAGERS	50	1.17	14.55
INDUSTRIAL PRODUCTION MANAGERS	90	2.10	12.44
GENERAL MANAGERS AND TOP EXECUTIVES	180	4.21	6.03
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	110	2.56	N/A
ACCOUNTANTS AND AUDITORS	10	0.23	17.20
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.47	32.39
COST ESTIMATORS	30	0.70	20.49
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
MECHANICAL ENGINEERS	20	0.47	25.78
ALL OTHER ENGINEERS	**	N/A	N/A
DRAFTERS	10	0.23	47.23
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
PHYSICAL SCIENTISTS	10	0.23	28.28
PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECHNOLOGISTS	10	0.23	33.33
SALES AND RELATED OCCUPATIONS	120	2.81	N/A
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	50	1.17	11.36
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	70	1.64	29.52
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	460	10.74	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.23	34.64
SECRETARIES	80	1.87	13.79
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	110	2.57	9.93
GENERAL OFFICE CLERK	110	2.57	15.17
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.70	17.24
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	10	0.23	10.10
TRAFFIC, SHIPPING AND RECEIVING CLERKS	110	2.57	11.57
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	30	0.70	N/A

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
**EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METAL SERVICES, NEC
SIC - 347
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR
JANITORS AND CLEANERS	30	0.70	22.60
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	3240	75.71	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	220	5.14	6.31
PRECISION INSPECTORS, TESTERS, AND GRADERS	30	0.70	21.42
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	150	3.50	8.08
MACHINERY MAINTENANCE MECHANICS	30	0.70	17.95
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	1.40	11.22
TOOL AND DIE MAKERS	10	0.23	33.33
MACHINISTS	30	0.70	48.31
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	20	0.47	40.68
ALL OTHER PRECISION WORKERS	30	0.70	75.90
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.23	27.66
MACHINE FORM OPERATORS, METAL AND PLASTICS	20	0.47	45.27
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	480	11.22	17.20
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	340	7.94	16.76
NONELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND	110	2.57	21.14
NONELECTROLYTIC PLATING AND COATING MACHINE OPERATORS	70	1.64	27.08
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	180	4.21	20.31
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	320	7.48	19.54
ALL OTHER MACHINE SETTERS	60	1.40	53.14
ALL OTHER MACHINE OPERATORS	170	3.97	64.18
GRINDING AND POLISHING WORKERS, HAND	60	1.40	43.03
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	260	6.08	10.20
ALL OTHER HAND WORKERS	80	1.87	41.88
TRUCK DRIVERS, HEAVY	40	0.94	18.42
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	50	1.17	13.14
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.23	20.35
MACHINE FEEDERS AND OFFBEARERS	50	1.17	48.41
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	100	2.34	32.75
HAND PACKERS AND PACKAGERS	230	5.37	15.70
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	20	0.47	49.21

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
**EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FABRICATED METAL PRODUCTS
SIC - 349
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6250	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	590	9.44	N/A
FINANCIAL MANAGERS	80	1.28	19.84
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.16	15.97
PURCHASING MANAGERS	20	0.32	17.60
MARKETING, ADVERTISING AND RELATED MANAGERS	80	1.28	29.87
ADMINISTRATIVE SERVICE MANAGERS	30	0.48	36.23
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	40	0.64	27.71
INDUSTRIAL PRODUCTION MANAGERS	90	1.44	9.85
GENERAL MANAGERS AND TOP EXECUTIVES	220	3.52	6.54
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.32	29.15
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	530	8.48	N/A
ACCOUNTANTS AND AUDITORS	40	0.64	19.69
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	60	0.96	11.17
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.16	28.28
COST ESTIMATORS	30	0.48	14.28
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	30	0.48	36.08
MECHANICAL ENGINEERS	140	2.24	15.57
ALL OTHER ENGINEERS	10	0.16	30.61
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.16	40.06
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	30	0.48	45.05
DRAFTERS	100	1.60	12.79
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.32	25.71
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	50	0.80	55.63
SALES AND RELATED OCCUPATIONS	300	4.80	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	60	0.96	25.19
SALES ENGINEERS	20	0.32	32.21
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	80	1.28	6.92
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	80	1.28	22.39
ALL OTHER SALES AND RELATED WORKERS	60	0.96	39.61
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	880	14.08	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	0.32	38.08
ADJUSTMENT CLERKS	10	0.16	37.11

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FABRICATED METAL PRODUCTS
SIC - 349
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SECRETARIES	140	2.24	11.90
RECEPTIONISTS AND INFORMATION CLERKS	10	0.16	23.07
TYPISTS	10	0.16	37.41
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.16	30.61
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	0.48	32.91
PROCUREMENT CLERKS	10	0.16	21.65
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	130	2.08	18.43
PAYROLL AND TIMEKEEPING CLERKS	10	0.16	17.67
BILLING, COST AND RATE CLERKS	10	0.16	41.66
GENERAL OFFICE CLERK	120	1.92	17.94
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.16	32.27
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.32	22.78
SWITCHBOARD OPERATOR	20	0.32	26.66
PRODUCTION, PLANNING, EXPEDITING CLERKS	140	2.24	27.19
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	60	0.96	13.96
TRAFFIC, SHIPPING AND RECEIVING CLERKS	90	1.44	20.21
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	0.48	58.74
SERVICE OCCUPATIONS	90	1.44	N/A
FIRST LINE SUPERVISORS - SERVICE	40	0.64	21.91
GUARDS AND WATCH GUARDS	20	0.32	36.97
JANITORS AND CLEANERS	30	0.48	19.63
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	3860	61.76	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.32	32.86
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	200	3.20	14.03
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.16	30.61
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	30	0.48	39.71
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.16	34.64
PRECISION INSPECTORS, TESTERS, AND GRADERS	50	0.80	18.04
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	160	2.56	9.44
MACHINERY MAINTENANCE MECHANICS	100	1.60	13.43
MACHINERY MAINTENANCE WORKERS	10	0.16	42.42
MAINTENANCE REPAIRERS, GENERAL UTILITY	50	0.80	25.71
TOOL AND DIE MAKERS	60	0.96	21.98
MACHINISTS	470	7.52	8.36
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	20	0.32	38.31
PRECISION LAYOUT WORKERS, METAL	10	0.16	0.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS FABRICATED METAL PRODUCTS
SIC - 349
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PRECISION WORKERS	120	1.92	78.72
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	10	0.16	40.82
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	200	3.20	25.13
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	30	0.48	17.63
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	10	0.16	46.35
MACHINE TOOL CUTTING OPERATORS	190	3.04	33.78
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	10	0.16	44.72
MACHINE FORM OPERATORS, METAL AND PLASTICS	170	2.72	34.35
WELDING MACHINE SETTERS AND SET-UP OPERATORS	10	0.16	31.71
WELDING MACHINE OPERATORS AND TENDERS	30	0.48	38.27
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	30	0.48	47.05
ALL OTHER MACHINE SETTERS	470	7.52	56.40
ALL OTHER MACHINE OPERATORS	280	4.48	64.07
PRECISION FITTERS, STRUCTURAL METAL	10	0.16	45.82
WELDERS AND CUTTERS	60	0.96	41.16
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	680	10.88	21.99
ALL OTHER HAND WORKERS	100	1.60	66.39
ALL OTHER PLANT AND SYSTEM OPERATORS	**	N/A	N/A
TRUCK DRIVERS, HEAVY	20	0.32	45.70
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.16	30.15
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	50	0.80	36.48
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	80	1.28	8.08
HAND PACKERS AND PACKAGERS	80	1.28	33.01
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.16	44.72

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

INDUSTRIAL MACHINERY AND EQUIPMENT
(SIC 35)

Industry Description

This major group includes establishments engaged in manufacturing industrial and commercial machinery and equipment and computers. Included are the manufacturing of engines and turbines; farm and garden machinery; construction, mining, and oil field machinery; elevators and conveying equipment; hoists, cranes, monorails, and industrial trucks and tractors; metalworking machinery; special industry machinery; general industrial machinery; computers and peripheral equipment and office machinery; and refrigeration and service industry machinery. Machine powered by built-in or detachable motors ordinarily are included in this major group.

Employment Trends

This industry declined by 11,600 jobs or 10.8 percent from its 1986 level of 107,400 jobs. By comparison, durable goods as a whole declined by 9 percent over this same three year time frame.

Occupational Structure

The largest major occupational category is production and maintenance with 32,500 workers representing 33 percent of employment in this industry. Nine of the top ten ranked occupations are in three occupational categories: managerial, etc.; professional, etc.; and production, etc. These 9 combined occupations account for 31,550 jobs or 32 percent of all occupations in this industry. The largest occupation in the industry is electrical and electronic engineers with 8,480 workers, nearly double the employment of the second largest occupation, machinists, with 4,650 workers.

TOP TEN OCCUPATIONS

Occupation	Jobs
Electrical and Electronic Engineers	8,480
Machinists	4,650
Secretaries	4,130
Engineering, Mathematical and Natural Science Managers	3,830
Industrial Production Managers	3,060
Systems Analysts, Electronic Data Processing	2,790
All Other Hand Workers	2,550
Computer Engineers	2,170
General Managers and Top Executives	2,060
Electrical and Electronic Equipment Assemblers	1,960

INDUSTRIAL MACHINERY AND EQUIPMENT
SIC - 35
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	97850	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	14860	15.20	N/A
FINANCIAL MANAGERS	1810	1.85	11.29
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	910	0.93	13.99
PURCHASING MANAGERS	300	0.31	15.19
MARKETING, ADVERTISING AND RELATED MANAGERS	1830	1.87	14.39
ADMINISTRATIVE SERVICE MANAGERS	320	0.33	21.19
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	3830	3.91	7.06
INDUSTRIAL PRODUCTION MANAGERS	3060	3.13	7.08
GENERAL MANAGERS AND TOP EXECUTIVES	2060	2.11	16.22
ALL OTHER MANAGERS AND ADMINISTRATORS	740	0.76	20.38
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	31480	32.19	N/A
ACCOUNTANTS AND AUDITORS	1450	1.48	15.73
BUDGET ANALYSTS	640	0.65	15.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	920	0.94	10.14
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	1030	1.05	8.16
COST ESTIMATORS	300	0.31	28.76
ALL OTHER MANAGEMENT SUPPORT WORKERS	1860	1.90	17.80
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	40	0.04	31.63
CIVIL ENGINEERS, INCLUDING TRAFFIC ENGINEERS	**	N/A	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	8480	8.67	13.38
COMPUTER ENGINEERS	2170	2.22	33.67
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	1400	1.43	16.57
MECHANICAL ENGINEERS	1740	1.78	18.26
ALL OTHER ENGINEERS	260	0.27	20.80
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	1930	1.97	12.52
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	190	0.20	28.89
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	1170	1.20	17.00
DRAFTERS	1100	1.12	15.91
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	440	0.45	15.37
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	2790	2.85	11.80
COMPUTER PROGRAMMERS	920	0.94	21.69
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	110	0.11	28.54
OPERATIONS AND SYSTEMS RESEARCHERS	470	0.48	12.85
MATHEMATICAL SCIENTISTS	350	0.36	31.67
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	90	0.09	11.10
WRITERS AND EDITORS	230	0.24	18.50

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

INDUSTRIAL MACHINERY AND EQUIPMENT
SIC - 35
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
TECHNICAL WRITERS	360	0.37	21.09
DESIGNERS, EXCEPT INTERIOR DESIGNERS	280	0.29	26.12
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	760	0.78	34.54
SALES AND RELATED OCCUPATIONS	3850	3.93	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	530	0.54	19.74
SALES ENGINEERS	820	0.84	27.61
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	1500	1.53	25.16
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	610	0.62	33.70
ALL OTHER SALES AND RELATED WORKERS	390	0.40	30.79
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	14100	14.39	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	840	0.86	19.25
ADJUSTMENT CLERKS	370	0.38	24.04
SECRETARIES	4130	4.22	8.88
STENOGRAPHERS	10	0.01	27.21
RECEPTIONISTS AND INFORMATION CLERKS	140	0.14	30.72
TYPISTS	100	0.10	26.77
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	90	0.09	22.32
FILE CLERKS	90	0.09	28.44
PROCUREMENT CLERKS	150	0.15	22.98
STATISTICAL CLERKS	40	0.04	32.99
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	1310	1.34	17.39
PAYROLL AND TIMEKEEPING CLERKS	140	0.14	22.34
GENERAL OFFICE CLERK	1320	1.35	33.23
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	650	0.66	10.48
DATA ENTRY KEYERS, EXCEPT COMPOSING	240	0.25	25.24
SWITCHBOARD OPERATOR	180	0.19	18.66
PRODUCTION, PLANNING, EXPEDITING CLERKS	1410	1.44	14.81
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	60	0.06	7.57
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	1000	1.02	19.60
TRAFFIC, SHIPPING AND RECEIVING CLERKS	1100	1.12	16.16
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	80	0.08	17.61
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	650	0.66	36.13
SERVICE OCCUPATIONS	1060	1.08	N/A
FIRST LINE SUPERVISORS - SERVICE	140	0.14	22.86
GUARDS AND WATCH GUARDS	400	0.41	10.64

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

INDUSTRIAL MACHINERY AND EQUIPMENT
SIC - 35
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FOOD AND BEVERAGE PREPARATION AND SERVICE WORKERS	40	0.04	30.02
JANITORS AND CLEANERS	470	0.48	16.09
ALL OTHER SERVICE WORKERS	10	0.01	36.08
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	32500	33.21	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	190	0.20	20.61
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	1630	1.67	11.15
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	90	0.09	14.49
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	70	0.07	28.71
PRECISION INSPECTORS, TESTERS, AND GRADERS	1380	1.41	16.10
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	740	0.76	20.91
MACHINERY MAINTENANCE MECHANICS	440	0.45	30.54
MACHINERY MAINTENANCE WORKERS	40	0.04	34.57
MAINTENANCE REPAIRERS, GENERAL UTILITY	470	0.48	26.78
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	60	0.06	11.72
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	580	0.59	30.32
ELECTRICIANS	230	0.24	15.51
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	50	0.05	19.33
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	40	0.04	15.82
TOOL AND DIE MAKERS	1030	1.05	26.68
MACHINISTS	4650	4.75	17.61
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	310	0.32	30.01
PRECISION FOUNDRY MOLD AND CORE MAKERS	20	0.02	5.00
ALL OTHER PRECISION WORKERS	1500	1.53	59.46
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	980	1.00	19.47
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	470	0.48	30.78
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	780	0.80	28.01
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	910	0.93	31.50
MACHINE TOOL CUTTING OPERATORS	1050	1.07	25.71
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	100	0.10	34.64
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	1410	1.44	22.01
SOLDERING AND BRAZING MACHINE OPERATORS AND TENDERS	50	0.05	5.28
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	20	0.02	27.71
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	30	0.03	8.00
HEATING EQUIPMENT SETTERS AND SET-UP OPERATORS, METAL	20	0.02	10.65
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	120	0.12	25.81
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	20	0.02	18.16
ALL OTHER MACHINE SETTERS	1570	1.60	60.71
ALL OTHER MACHINE OPERATORS	1840	1.88	63.41
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	900	0.92	33.69

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

INDUSTRIAL MACHINERY AND EQUIPMENT
SIC - 35
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	1960	2.00	34.89
ELECTRICAL AND ELECTRONIC ASSEMBLERS	710	0.73	23.85
COIL WINDERS, TAPERS AND FINISHERS	20	0.02	32.76
SOLDERERS AND BRAZERS	40	0.04	25.98
GRINDING AND POLISHING WORKERS, HAND	270	0.28	33.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	1450	1.48	30.96
ALL OTHER HAND WORKERS	2550	2.61	41.20
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.01	39.66
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	190	0.20	29.91
ALL OTHER TRANSPORTATION WORKERS	130	0.13	46.99
CRANE AND TOWER OPERATORS	30	0.03	20.76
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	130	0.13	39.53
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	430	0.44	34.37
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	790	0.81	46.88

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ENGINES AND TURBINES
SIC - 351
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	2060	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	4.84	N/A
FINANCIAL MANAGERS	10	0.48	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.48	28.28
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	10	0.48	0.00
INDUSTRIAL PRODUCTION MANAGERS	20	0.97	6.66
GENERAL MANAGERS AND TOP EXECUTIVES	30	1.46	9.79
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.97	36.03
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	620	30.07	N/A
ACCOUNTANTS AND AUDITORS	30	1.46	9.75
BUDGET ANALYSTS	10	0.48	0.00
ALL OTHER FINANCIAL SPECIALISTS	10	0.48	20.20
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	50	2.43	4.38
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.48	0.00
COST ESTIMATORS	10	0.48	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.48	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	20	0.97	0.00
COMPUTER ENGINEERS	30	1.46	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	20	0.97	8.69
MECHANICAL ENGINEERS	70	3.40	4.94
ALL OTHER ENGINEERS	10	0.48	28.28
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	30	1.46	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	70	3.40	4.15
DRAFTERS	150	7.28	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.48	12.86
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	60	2.91	14.81
COMPUTER PROGRAMMERS	20	0.97	8.69
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	**	N/A	N/A
SALES AND RELATED OCCUPATIONS	100	4.85	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	30	1.46	0.00
SALES ENGINEERS	30	1.46	5.43
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	20	0.97	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.48	28.28
ALL OTHER SALES AND RELATED WORKERS	10	0.48	10.87

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ENGINES AND TURBINES
SIC - 351
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	270	13.09	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.48	0.00
ADJUSTMENT CLERKS	10	0.48	0.00
SECRETARIES	60	2.91	7.23
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	10	0.48	25.00
GENERAL OFFICE CLERK	10	0.48	14.14
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.48	22.36
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	1.46	5.41
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	20	0.97	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	50	2.43	20.50
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	1.46	9.67
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	1.46	39.49
SERVICE OCCUPATIONS	10	0.48	N/A
JANITORS AND CLEANERS	10	0.48	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	960	46.67	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	50	2.43	6.38
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	90	4.37	0.00
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	40	1.94	0.00
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.48	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.49	0.00
PRECISION INSPECTORS, TESTERS, AND GRADERS	50	2.43	8.60
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	1.94	4.87
MACHINERY MAINTENANCE MECHANICS	30	1.46	0.00
TOOL AND DIE MAKERS	10	0.49	0.00
MACHINISTS	160	7.77	4.29
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	10	0.49	0.00
PRECISION LAYOUT WORKERS, METAL	10	0.49	0.00
ALL OTHER PRECISION WORKERS	10	0.49	100.00
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	20	0.97	25.64
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	10	0.49	22.22
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	10	0.49	0.00
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	30	1.46	11.05
MACHINE BUILDERS AND OTHER PRECISION MACHINE	140	6.80	4.63
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	10	0.49	0.00
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	40	1.94	0.00
WELDERS AND CUTTERS	30	1.46	4.71

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ENGINES AND TURBINES
SIC - 351
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
GRINDING AND POLISHING WORKERS, HAND	20	0.97	0.00
ALL OTHER HAND WORKERS	70	3.40	14.93
CRANE AND TOWER OPERATORS	10	0.49	0.00
MECHANIC AND REPAIRER HELPERS	10	0.49	0.00
MACHINE FEEDERS AND OFFBEARERS	30	1.46	0.00
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.49	82.16

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METALWORKING MACHINERY
SIC - 354
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	12030	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1060	8.81	N/A
FINANCIAL MANAGERS	160	1.33	18.95
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.17	29.30
PURCHASING MANAGERS	10	0.08	30.00
MARKETING, ADVERTISING AND RELATED MANAGERS	40	0.33	19.81
ADMINISTRATIVE SERVICE MANAGERS	20	0.17	43.22
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	110	0.91	22.12
INDUSTRIAL PRODUCTION MANAGERS	210	1.75	15.12
GENERAL MANAGERS AND TOP EXECUTIVES	480	3.99	11.63
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.08	54.43
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1040	8.63	N/A
ACCOUNTANTS AND AUDITORS	70	0.58	25.11
ALL OTHER FINANCIAL SPECIALISTS	30	0.25	27.95
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	90	0.75	18.85
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.08	17.67
COST ESTIMATORS	30	0.25	30.64
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.42	20.29
CIVIL ENGINEERS, INCLUDING TRAFFIC ENGINEERS	**	N/A	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	30	0.25	24.74
MECHANICAL ENGINEERS	220	1.83	31.05
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	40	0.33	35.13
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.08	27.95
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.17	29.15
DRAFTERS	140	1.16	28.85
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	40	0.33	22.49
COMPUTER PROGRAMMERS	40	0.33	49.32
COMPUTER PROGRAMMER AIDES	10	0.08	28.86
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	20	0.17	0.00
TECHNICAL WRITERS	10	0.08	14.28
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.33	35.34
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	140	1.16	54.98
SALES AND RELATED OCCUPATIONS	310	2.58	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	50	0.42	23.05
SALES ENGINEERS	90	0.75	29.50

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METALWORKING MACHINERY
SIC - 354
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	100	0.83	44.98
ALL OTHER SALES AND RELATED WORKERS	70	0.58	73.37
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1380	11.47	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	90	0.75	26.79
ADJUSTMENT CLERKS	40	0.33	39.76
SECRETARIES	210	1.75	18.51
STENOGRAPHERS	10	0.08	0.00
TYPISTS	20	0.17	28.32
FILE CLERKS	40	0.33	33.43
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	0.25	38.97
PROCUREMENT CLERKS	10	0.08	20.32
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	220	1.83	17.35
PAYROLL AND TIMEKEEPING CLERKS	40	0.33	12.56
BILLING, COST AND RATE CLERKS	20	0.17	42.75
GENERAL OFFICE CLERK	140	1.16	25.09
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.17	28.34
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.17	46.98
SWITCHBOARD OPERATOR	20	0.17	28.81
PRODUCTION, PLANNING, EXPEDITING CLERKS	80	0.66	26.51
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	30	0.25	5.23
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	170	1.41	28.45
TRAFFIC, SHIPPING AND RECEIVING CLERKS	130	1.08	17.86
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	10	0.08	0.00
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	0.25	61.67
SERVICE OCCUPATIONS	100	0.84	N/A
GUARDS AND WATCH GUARDS	20	0.17	5.26
JANITORS AND CLEANERS	80	0.67	18.86
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	8140	67.67	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	30	0.25	25.19
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	320	2.66	10.34
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.17	27.59
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.08	43.58
PRECISION INSPECTORS, TESTERS, AND GRADERS	190	1.58	10.68
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	100	0.83	22.04
MACHINERY MAINTENANCE MECHANICS	30	0.25	33.56

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

METALWORKING MACHINERY
SIC - 354
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE WORKERS	10	0.08	48.43
CARPENTERS	10	0.08	18.63
ELECTRICIANS	30	0.25	30.63
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	20	0.17	8.83
TOOL AND DIE MAKERS	700	5.82	23.70
MACHINISTS	1310	10.89	19.01
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	170	1.41	31.10
PRECISION LAYOUT WORKERS, METAL	40	0.33	35.52
PRECISION FOUNDRY MOLD AND CORE MAKERS	10	0.08	0.00
ALL OTHER PRECISION WORKERS	350	2.91	80.87
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	70	0.58	37.89
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	230	1.91	20.19
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	100	0.83	36.66
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	220	1.83	20.16
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	500	4.16	33.81
MACHINE TOOL CUTTING OPERATORS	480	3.99	20.78
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	80	0.67	23.41
MACHINE FORM OPERATORS, METAL AND PLASTICS	50	0.42	22.83
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	280	2.33	19.56
WELDING MACHINE OPERATORS AND TENDERS	20	0.17	26.80
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	10	0.08	0.00
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	100	0.83	25.47
FURNACE OPERATORS AND TENDERS	10	0.08	0.00
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	10	0.08	0.00
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	60	0.50	23.86
ALL OTHER MACHINE SETTERS	540	4.49	72.74
ALL OTHER MACHINE OPERATORS	510	4.24	80.66
MACHINE BUILDERS AND OTHER PRECISION MACHINE	190	1.58	48.97
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	170	1.41	9.01
ELECTRICAL AND ELECTRONIC ASSEMBLERS	20	0.17	28.82
WELDERS AND CUTTERS	100	0.83	32.06
GRINDING AND POLISHING WORKERS, HAND	80	0.67	36.18
ALL OTHER HAND WORKERS	530	4.41	68.96
TRUCK DRIVERS, HEAVY	20	0.17	25.98
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	30	0.25	36.48
ALL OTHER TRANSPORTATION WORKERS	10	0.08	69.23
CRANE AND TOWER OPERATORS	10	0.08	28.86
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.25	32.71
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	110	0.91	43.70
HAND PACKERS AND PACKAGERS	100	0.83	31.78
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	120	1.00	57.07

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SPECIAL INDUSTRIAL MACHINERY
SIC - 355
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	10290	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1160	11.28	N/A
FINANCIAL MANAGERS	120	1.17	15.13
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	40	0.39	19.86
PURCHASING MANAGERS	50	0.49	20.61
MARKETING, ADVERTISING AND RELATED MANAGERS	170	1.65	9.94
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	270	2.62	6.07
INDUSTRIAL PRODUCTION MANAGERS	100	0.97	17.61
GENERAL MANAGERS AND TOP EXECUTIVES	360	3.50	27.60
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.49	57.11
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	2260	21.95	N/A
ACCOUNTANTS AND AUDITORS	150	1.46	13.63
BUDGET ANALYSTS	20	0.19	13.97
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	130	1.26	13.71
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	20	0.19	13.22
ELECTRICAL AND ELECTRONIC ENGINEERS	380	3.69	26.92
COMPUTER ENGINEERS	320	3.11	2.04
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	100	0.97	27.19
MECHANICAL ENGINEERS	250	2.43	18.14
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	190	1.85	19.94
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	90	0.87	23.46
DRAFTERS	200	1.94	17.53
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	50	0.49	7.67
COMPUTER PROGRAMMERS	60	0.58	8.06
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.10	20.20
TECHNICAL WRITERS	10	0.10	9.42
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.10	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	270	2.62	46.26
SALES AND RELATED OCCUPATIONS	710	6.90	N/A
SALES ENGINEERS	150	1.46	31.10
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	170	1.65	30.81
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	240	2.33	19.20
ALL OTHER SALES AND RELATED WORKERS	150	1.46	36.10
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1850	17.96	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SPECIAL INDUSTRIAL MACHINERY
SIC - 355
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	90	0.87	28.77
ADJUSTMENT CLERKS	60	0.58	16.82
SECRETARIES	300	2.91	10.61
TYPISTS	20	0.19	23.17
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.19	9.99
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	170	1.65	23.28
PAYROLL AND TIMEKEEPING CLERKS	20	0.19	32.29
BILLING, COST AND RATE CLERKS	10	0.10	31.13
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	40	0.39	6.42
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.29	33.74
ALL OTHER OFFICE MACHINE OPERATORS	10	0.10	0.00
SWITCHBOARD OPERATOR	30	0.29	24.48
PRODUCTION, PLANNING, EXPEDITING CLERKS	110	1.07	20.28
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	120	1.17	16.19
TRAFFIC, SHIPPING AND RECEIVING CLERKS	170	1.65	10.85
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	40	0.39	15.36
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	610	5.93	43.48
SERVICE OCCUPATIONS	80	0.78	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.19	24.65
GUARDS AND WATCH GUARDS	10	0.10	0.00
JANITORS AND CLEANERS	40	0.39	23.57
ALL OTHER SERVICE WORKERS	10	0.10	48.41
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4230	41.13	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	180	1.75	17.53
PRECISION INSPECTORS, TESTERS, AND GRADERS	180	1.75	25.08
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPLE	190	1.85	15.63
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	320	3.11	25.94
ELECTRICIANS	20	0.19	28.86
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.10	24.99
MACHINISTS	690	6.71	31.63
ALL OTHER PRECISION WORKERS	290	2.82	80.02
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	80	0.78	32.41
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	10	0.10	0.00
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	40	0.39	30.51
ALL OTHER MACHINE SETTERS	410	3.98	66.47
ALL OTHER MACHINE OPERATORS	510	4.96	60.50

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SPECIAL INDUSTRIAL MACHINERY
SIC - 355
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	260	2.53	23.19
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	70	0.68	22.57
ALL OTHER HAND WORKERS	750	7.29	47.54
ALL OTHER TRANSPORTATION WORKERS	40	0.39	48.41
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	40	0.39	50.23
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	140	1.36	84.76

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

GENERAL INDUSTRIAL MACHINERY
SIC - 356
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	7750	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	830	10.71	N/A
FINANCIAL MANAGERS	80	1.03	14.22
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	30	0.39	27.06
PURCHASING MANAGERS	40	0.51	26.05
MARKETING, ADVERTISING AND RELATED MANAGERS	110	1.42	12.83
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	150	1.93	15.81
INDUSTRIAL PRODUCTION MANAGERS	140	1.81	10.29
GENERAL MANAGERS AND TOP EXECUTIVES	250	3.23	20.23
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.39	43.82
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	1300	16.75	N/A
ACCOUNTANTS AND AUDITORS	60	0.77	16.41
BUDGET ANALYSTS	10	0.13	0.00
ALL OTHER FINANCIAL SPECIALISTS	10	0.13	48.98
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	80	1.03	13.50
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.13	18.84
COST ESTIMATORS	50	0.64	25.45
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.26	28.34
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	10	0.13	0.00
CHEMICAL ENGINEERS	30	0.39	34.04
ELECTRICAL AND ELECTRONIC ENGINEERS	90	1.16	21.81
COMPUTER ENGINEERS	10	0.13	17.20
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	70	0.90	21.06
MECHANICAL ENGINEERS	200	2.58	8.86
ALL OTHER ENGINEERS	20	0.26	10.18
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	60	0.77	24.18
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	50	0.64	11.78
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	50	0.64	32.73
DRAFTERS	170	2.19	16.79
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	50	0.64	46.47
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	20	0.26	45.90
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.26	16.63
COMPUTER PROGRAMMER AIDES	10	0.13	14.28
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	10	0.13	18.84
WRITERS AND EDITORS	10	0.13	0.00
TECHNICAL WRITERS	20	0.26	32.14
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.13	19.99

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

GENERAL INDUSTRIAL MACHINERY
SIC - 356
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	150	1.93	68.00
SALES AND RELATED OCCUPATIONS	420	5.41	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	60	0.77	20.60
SALES ENGINEERS	180	2.32	27.22
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	70	0.90	30.98
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	80	1.03	47.63
ALL OTHER SALES AND RELATED WORKERS	30	0.39	12.90
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1150	14.85	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	80	1.03	27.76
ADJUSTMENT CLERKS	50	0.64	12.96
SECRETARIES	260	3.35	11.80
RECEPTIONISTS AND INFORMATION CLERKS	20	0.26	31.25
TYPISTS	20	0.26	29.30
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.13	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.13	10.87
FILE CLERKS	10	0.13	33.33
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	30	0.39	20.00
PROCUREMENT CLERKS	20	0.26	25.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	140	1.81	15.24
PAYROLL AND TIMEKEEPING CLERKS	20	0.26	20.82
BILLING, COST AND RATE CLERKS	30	0.39	34.31
GENERAL OFFICE CLERK	70	0.90	23.88
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	20	0.26	24.95
DATA ENTRY KEYERS, EXCEPT COMPOSING	30	0.39	28.34
SWITCHBOARD OPERATOR	20	0.26	20.38
PRODUCTION, PLANNING, EXPEDITING CLERKS	110	1.42	9.79
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	80	1.03	26.54
TRAFFIC, SHIPPING AND RECEIVING CLERKS	100	1.29	13.69
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	**	N/A	N/A
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	0.26	50.24
SERVICE OCCUPATIONS	100	1.29	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.13	43.03
JANITORS AND CLEANERS	60	0.77	15.72
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
ALL OTHER SERVICE WORKERS	30	0.39	54.10

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

GENERAL INDUSTRIAL MACHINERY
SIC - 356
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	3950	50.99	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.26	28.28
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	210	2.71	14.23
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.13	35.35
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.13	7.69
PRECISION INSPECTORS, TESTERS, AND GRADERS	80	1.03	17.12
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	80	1.03	24.21
MACHINERY MAINTENANCE MECHANICS	40	0.51	23.61
MACHINERY MAINTENANCE WORKERS	10	0.13	39.99
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	0.51	42.10
CARPENTERS	10	0.13	34.99
ELECTRICIANS	20	0.26	28.25
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.13	17.49
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	20	0.26	0.00
TOOL AND DIE MAKERS	90	1.16	32.34
MACHINISTS	400	5.16	22.73
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	40	0.51	22.04
PRECISION LAYOUT WORKERS, METAL	20	0.26	36.88
SHEET METAL WORKERS	200	2.58	49.41
PATTERN AND MODEL MAKERS, WOOD	10	0.13	0.00
PRECISION FOUNDRY MOLD AND CORE MAKERS	10	0.13	14.28
ALL OTHER PRECISION WORKERS	30	0.39	50.74
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	20	0.26	21.29
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	190	2.45	15.01
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	80	1.03	18.89
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS	70	0.90	22.50
MACHINE TOOL CUTTING OPERATORS	110	1.42	14.81
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS	100	1.29	21.30
WELDING MACHINE SETTERS AND SET-UP OPERATORS	30	0.39	30.19
ELECTRONIC SEMICONDUCTOR PROCESSORS	10	0.13	16.66
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	40	0.52	37.03
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.13	23.57
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	10	0.13	31.13
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	10	0.13	14.28
ALL OTHER MACHINE SETTERS	270	3.48	62.77
ALL OTHER MACHINE OPERATORS	200	2.58	68.13
MACHINE BUILDERS AND OTHER PRECISION MACHINE	190	2.45	28.86
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	40	0.52	22.46
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	130	1.68	16.62

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

GENERAL INDUSTRIAL MACHINERY
SIC - 356
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE ASSEMBLERS	130	1.68	21.00
ELECTRICAL AND ELECTRONIC ASSEMBLERS	20	0.26	16.26
WELDERS AND CUTTERS	130	1.68	45.65
SOLDERERS AND BRAZERS	10	0.13	16.66
GRINDING AND POLISHING WORKERS, HAND	30	0.39	38.79
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	500	6.45	18.60
ALL OTHER HAND WORKERS	20	0.26	56.24
TRUCK DRIVERS, HEAVY	10	0.13	0.00
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	0.26	28.64
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
CRANE AND TOWER OPERATORS	10	0.13	48.41
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.26	22.78
MECHANIC AND REPAIRER HELPERS	40	0.52	9.68
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	90	1.16	19.84
HAND PACKERS AND PACKAGERS	40	0.52	31.18
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.13	84.77

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

COMPUTER AND OFFICE EQUIPMENT
SIC - 357
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	53380	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	10520	19.71	N/A
FINANCIAL MANAGERS	1250	2.34	9.19
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	800	1.50	12.74
PURCHASING MANAGERS	180	0.34	10.62
MARKETING, ADVERTISING AND RELATED MANAGERS	1440	2.70	14.88
ADMINISTRATIVE SERVICE MANAGERS	240	0.45	16.01
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	3180	5.96	5.90
INDUSTRIAL PRODUCTION MANAGERS	2380	4.46	5.04
GENERAL MANAGERS AND TOP EXECUTIVES	370	0.69	20.12
ALL OTHER MANAGERS AND ADMINISTRATORS	680	1.27	17.41
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	25310	47.42	N/A
ACCOUNTANTS AND AUDITORS	1090	2.04	15.33
BUDGET ANALYSTS	600	1.12	15.28
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	480	0.90	6.99
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	980	1.84	7.79
COST ESTIMATORS	90	0.17	34.65
ALL OTHER MANAGEMENT SUPPORT WORKERS	1660	3.11	16.06
ELECTRICAL AND ELECTRONIC ENGINEERS	7910	14.82	12.22
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	1090	2.04	15.01
MECHANICAL ENGINEERS	840	1.57	18.68
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	1610	3.02	10.07
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	900	1.69	15.88
DRAFTERS	290	0.54	12.97
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	420	0.79	16.25
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	2620	4.91	11.58
COMPUTER PROGRAMMERS	600	1.12	12.59
OPERATIONS AND SYSTEMS RESEARCHERS	470	0.88	12.77
MATHEMATICAL SCIENTISTS	350	0.66	31.67
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	80	0.15	8.21
WRITERS AND EDITORS	220	0.41	18.96
TECHNICAL WRITERS	310	0.58	20.84
DESIGNERS, EXCEPT INTERIOR DESIGNERS	210	0.39	25.19
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	2490	4.67	35.62
SALES AND RELATED OCCUPATIONS	1980	3.70	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE

COMPUTER AND OFFICE EQUIPMENT
SIC - 357
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	290	0.54	16.74
SALES ENGINEERS	280	0.52	27.92
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	1130	2.12	22.99
ALL OTHER SALES AND RELATED WORKERS	280	0.52	32.50
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	7820	14.65	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	410	0.77	8.81
ADJUSTMENT CLERKS	170	0.32	28.12
SECRETARIES	3000	5.62	7.31
RECEPTIONISTS AND INFORMATION CLERKS	70	0.13	22.33
TYPISTS	10	0.02	20.00
TYPISTS, WORD PROCESSING EQUIPMENT	40	0.07	25.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	30	0.06	32.09
FILE CLERKS	30	0.06	20.81
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	70	0.13	26.72
PROCUREMENT CLERKS	60	0.11	13.46
STATISTICAL CLERKS	30	0.06	25.92
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	520	0.97	16.62
PAYROLL AND TIMEKEEPING CLERKS	40	0.07	28.85
BILLING, COST AND RATE CLERKS	50	0.09	30.46
GENERAL OFFICE CLERK	480	0.90	32.15
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	550	1.03	8.82
DATA ENTRY KEYERS, EXCEPT COMPOSING	150	0.28	18.57
SWITCHBOARD OPERATOR	90	0.17	16.73
PRODUCTION, PLANNING, EXPEDITING CLERKS	970	1.82	13.85
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	470	0.88	16.14
TRAFFIC, SHIPPING AND RECEIVING CLERKS	470	0.88	18.71
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	20	0.04	32.40
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	90	0.17	34.55
SERVICE OCCUPATIONS	610	1.15	N/A
FIRST LINE SUPERVISORS - SERVICE	90	0.17	13.84
GUARDS AND WATCH GUARDS	340	0.64	9.01
FOOD AND BEVERAGE PREPARATION AND SERVICE WORKERS	10	0.02	15.97
JANITORS AND CLEANERS	170	0.32	13.04
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	7140	13.37	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE

COMPUTER AND OFFICE EQUIPMENT
SIC - 357
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	50	0.09	31.43
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	450	0.84	11.37
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.04	23.45
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.02	32.63
PRECISION INSPECTORS, TESTERS, AND GRADERS	640	1.20	15.95
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	240	0.45	25.49
MACHINERY MAINTENANCE MECHANICS	120	0.23	27.36
MAINTENANCE REPAIRERS, GENERAL UTILITY	280	0.52	10.85
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	50	0.09	9.99
PRECISION INSTRUMENT REPAIRERS	280	0.52	34.22
CARPENTERS	40	0.07	24.68
ELECTRICIANS	120	0.22	9.97
TOOL AND DIE MAKERS	50	0.09	32.46
ALL OTHER PRECISION WORKERS	470	0.88	46.18
SOLDERING AND BRAZING MACHINE SETTERS AND SET-UP OPERATOR	20	0.04	27.48
SOLDERING AND BRAZING MACHINE OPERATORS AND TENDERS	50	0.09	5.87
ALL OTHER MACHINE SETTERS	210	0.39	53.34
ALL OTHER MACHINE OPERATORS	490	0.92	63.78
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	1530	2.87	31.66
ELECTRICAL AND ELECTRONIC ASSEMBLERS	500	0.94	20.62
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	500	0.94	34.28
ALL OTHER HAND WORKERS	610	1.14	56.70
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.02	53.45
TRUCK DRIVERS, HEAVY	20	0.04	25.49
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	80	0.15	29.28
ALL OTHER TRANSPORTATION WORKERS	20	0.04	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	20	0.04	41.79
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	150	0.28	27.23
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	110	0.21	52.74

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE

REFRIGERATION AND SERVICE MACHINERY
SIC - 358
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	2270	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	210	9.25	N/A
FINANCIAL MANAGERS	20	0.88	7.44
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.44	0.00
PURCHASING MANAGERS	10	0.44	9.09
MARKETING, ADVERTISING AND RELATED MANAGERS	30	1.32	3.44
ADMINISTRATIVE SERVICE MANAGERS	10	0.44	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	1.32	15.38
INDUSTRIAL PRODUCTION MANAGERS	40	1.76	7.71
GENERAL MANAGERS AND TOP EXECUTIVES	50	2.21	6.92
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.44	40.82
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	250	11.01	N/A
ACCOUNTANTS AND AUDITORS	20	0.88	6.24
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	1.32	3.33
COST ESTIMATORS	10	0.44	12.49
ALL OTHER MANAGEMENT SUPPORT WORKERS	10	0.44	0.00
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	10	0.44	12.49
ELECTRICAL AND ELECTRONIC ENGINEERS	10	0.44	19.99
COMPUTER ENGINEERS	10	0.44	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	40	1.76	8.10
MECHANICAL ENGINEERS	50	2.21	9.02
ALL OTHER ENGINEERS	**	N/A	N/A
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.44	0.00
DRAFTERS	30	1.32	17.89
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	10	0.44	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.44	9.99
SALES AND RELATED OCCUPATIONS	130	5.72	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	20	0.88	4.16
SALES ENGINEERS	30	1.32	30.64
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	50	2.20	25.03
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	20	0.88	23.53
ALL OTHER SALES AND RELATED WORKERS	10	0.44	10.87

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

REFRIGERATION AND SERVICE MACHINERY
SIC - 358
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	430	18.94	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	40	1.76	4.81
ADJUSTMENT CLERKS	30	1.32	21.75
SECRETARIES	50	2.21	5.96
RECEPTIONISTS AND INFORMATION CLERKS	10	0.44	16.66
TYPISTS	10	0.44	26.72
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.44	14.28
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.44	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	20	0.88	17.67
PROCUREMENT CLERKS	10	0.44	27.21
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	40	1.76	10.46
PAYROLL AND TIMEKEEPING CLERKS	10	0.44	19.99
BILLING, COST AND RATE CLERKS	10	0.44	16.66
GENERAL OFFICE CLERK	30	1.32	25.75
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.44	41.57
SWITCHBOARD OPERATOR	10	0.44	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	40	1.76	4.44
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	50	2.21	4.99
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	1.32	10.18
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.44	0.00
SERVICE OCCUPATIONS	10	0.44	N/A
JANITORS AND CLEANERS	10	0.44	7.69
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	1240	54.64	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.88	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	110	4.85	1.35
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	40	1.76	0.00
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	20	0.88	0.00
MACHINERY MAINTENANCE MECHANICS	20	0.88	5.88
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.88	5.88
ELECTRICIANS	20	0.88	6.73
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.44	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.44	0.00
TOOL AND DIE MAKERS	20	0.88	0.00
MACHINISTS	50	2.21	11.58

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

REFRIGERATION AND SERVICE MACHINERY
SIC - 358
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OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	30	1.32	3.57
SHEET METAL WORKERS	70	3.09	26.47
ALL OTHER PRECISION METAL WORKERS	10	0.44	0.00
ALL OTHER PRECISION WOODWORKERS	**	N/A	N/A
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	10	0.44	10.87
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	10	0.44	21.65
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	40	1.76	14.36
MACHINE TOOL CUTTING OPERATORS	20	0.88	5.88
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	20	0.88	14.69
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	10	0.44	23.57
MACHINE FORM OPERATORS, METAL AND PLASTICS	10	0.44	12.49
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	40	1.76	7.25
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	10	0.44	0.00
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	20	0.88	13.92
WELDING MACHINE SETTERS AND SET-UP OPERATORS	10	0.44	0.00
WELDING MACHINE OPERATORS AND TENDERS	20	0.88	30.49
FURNACE OPERATORS AND TENDERS	10	0.44	0.00
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	50	2.21	2.12
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	**	N/A	N/A
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.44	47.14
PACKAGING AND FILLING MACHINE OPERATORS	10	0.44	0.00
ALL OTHER MACHINE OPERATORS	**	N/A	N/A
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	10	0.44	0.00
MACHINE ASSEMBLERS	100	4.41	11.72
ELECTRICAL AND ELECTRONIC ASSEMBLERS	30	1.32	8.82
WELDERS AND CUTTERS	100	4.41	8.01
SOLDERERS AND BRAZERS	10	0.44	9.99
GRINDING AND POLISHING WORKERS, HAND	10	0.44	0.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	100	4.41	8.77
ALL OTHER HAND WORKERS	110	4.85	54.85
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	20	0.88	6.66
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	**	N/A	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

INDUSTRIAL MACHINERY, NEC
SIC - 359
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	9360	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	930	9.94	N/A
FINANCIAL MANAGERS	160	1.71	16.37
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.11	18.63
PURCHASING MANAGERS	20	0.21	14.40
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.32	14.28
ADMINISTRATIVE SERVICE MANAGERS	10	0.11	19.24
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	70	0.75	17.92
INDUSTRIAL PRODUCTION MANAGERS	150	1.60	13.86
GENERAL MANAGERS AND TOP EXECUTIVES	480	5.13	8.38
ALL OTHER MANAGERS AND ADMINISTRATORS	**	N/A	N/A
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	680	7.27	N/A
ACCOUNTANTS AND AUDITORS	30	0.32	29.86
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	60	0.64	16.82
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.11	34.64
COST ESTIMATORS	70	0.75	24.46
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	10	0.11	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	30	0.32	44.60
COMPUTER ENGINEERS	10	0.11	39.99
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	50	0.53	28.19
MECHANICAL ENGINEERS	100	1.07	17.75
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	30	0.32	48.03
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.21	42.41
DRAFTERS	90	0.96	21.25
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.11	20.35
COMPUTER PROGRAMMERS	90	0.96	23.88
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	20	0.21	32.53
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.11	43.59
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	40	0.43	83.45
SALES AND RELATED OCCUPATIONS	160	1.71	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.11	33.07
SALES ENGINEERS	60	0.64	21.87
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	30	0.32	31.44
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	50	0.53	34.04
ALL OTHER SALES AND RELATED WORKERS	10	0.11	30.61

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

INDUSTRIAL MACHINERY, NEC
SIC - 359
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1070	11.43	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	110	1.17	40.31
SECRETARIES	240	2.56	13.45
RECEPTIONISTS AND INFORMATION CLERKS	10	0.11	31.42
TYPISTS	10	0.11	36.36
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.11	47.38
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.11	15.74
PROCUREMENT CLERKS	10	0.11	9.09
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	190	2.03	13.92
PAYROLL AND TIMEKEEPING CLERKS	10	0.11	24.49
GENERAL OFFICE CLERK	140	1.49	20.64
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.11	45.06
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	10	0.11	28.57
PRODUCTION, PLANNING, EXPEDITING CLERKS	60	0.64	23.80
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	50	0.53	26.74
TRAFFIC, SHIPPING AND RECEIVING CLERKS	140	1.49	13.69
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	10	0.11	46.77
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	50	0.53	68.11
SERVICE OCCUPATIONS	110	1.17	N/A
JANITORS AND CLEANERS	90	0.96	16.59
ALL OTHER SERVICE WORKERS	20	0.21	71.86
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	6410	68.48	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.11	22.36
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	260	2.78	10.83
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.11	0.00
PRECISION INSPECTORS, TESTERS, AND GRADERS	210	2.24	17.78
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	60	0.64	31.02
MACHINERY MAINTENANCE MECHANICS	100	1.07	39.17
MACHINERY MAINTENANCE WORKERS	10	0.11	26.64
ELECTRICIANS	20	0.21	0.00
TOOL AND DIE MAKERS	160	1.71	33.43
MACHINISTS	1930	20.62	9.58
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	30	0.32	36.06
ALL OTHER PRECISION WORKERS	260	2.78	63.39
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	20	0.21	48.56

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N/A NOT AVAILABLE.

INDUSTRIAL MACHINERY, NEC
SIC - 359
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	400	4.27	13.73
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	180	1.92	27.08
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	350	3.74	19.98
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	250	2.67	29.51
MACHINE TOOL CUTTING OPERATORS	320	3.42	27.84
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	10	0.11	45.73
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	760	8.12	12.93
WELDING MACHINE SETTERS AND SET-UP OPERATORS	60	0.64	22.78
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	10	0.11	0.00
HEATING EQUIPMENT SETTERS AND SET-UP OPERATORS, METAL A	20	0.21	0.00
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	10	0.11	0.00
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	10	0.11	0.00
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.11	48.59
ALL OTHER MACHINE SETTERS	140	1.50	74.65
ALL OTHER MACHINE OPERATORS	90	0.96	80.92
MACHINE BUILDERS AND OTHER PRECISION MACHINE	120	1.28	21.22
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	40	0.43	38.46
MACHINE ASSEMBLERS	80	0.85	46.19
WELDERS AND CUTTERS	120	1.28	41.16
SOLDERERS AND BRAZERS	10	0.11	0.00
GRINDING AND POLISHING WORKERS, HAND	80	0.85	30.89
ALL OTHER HAND WORKERS	100	1.07	76.63
TRUCK DRIVERS, HEAVY	10	0.11	37.79
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	0.21	19.04
ALL OTHER TRANSPORTATION WORKERS	10	0.11	55.27
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	20	0.21	33.79
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	20	0.21	47.38
HAND PACKERS AND PACKAGERS	20	0.21	35.31
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	60	0.64	71.19

1 SUMMED PARTS MAY NOT EQUAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT (SIC 36)

Industry Description

This major group includes establishments engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy. Included are the manufacturing of electricity distribution equipment; electrical industrial apparatus; household appliances; electrical lighting and wiring equipment; radio and television receiving equipment; communications equipment; electronic components and accessories; and other electrical equipment and supplies.

Employment Trends

The electronic and other electrical equipment industry declined by 3,300 jobs or 4 percent between 1988 and 1989. Overall, the durable goods sector declined 4.1 percent during the same time period.

Occupational Structure

At 48.8 percent, production and maintenance workers comprise nearly half of the industry's workforce. Seven of the top ten ranked occupations are in the production and maintenance category and comprise 25,970 workers or 66.3 percent of all workers in this category. Three of the top ten ranked occupations are in the professional and technical category and total 10,930 workers or 52.4 percent of all workers in that category.

TOP TEN OCCUPATIONS

Occupation	Jobs
Electrical and Electronic Assemblers	6,810
Assemblers and Fabricators-except Machine, Electrical	5,850
Electrical and Electronic Engineers	4,850
Electrical,Electronic Engineering Technicians, Technologists	3,680
All Other Precision Metal Assemblers	3,500
All Other Machine Operators	3,230
All Other Professional, Paraprofessional, & Technicians	2,400
All Other Helpers, Laborers, Movers-Hand	2,370
First Line Supervisors-Production and Related	2,230
All Other Hand Workers	1,980

ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT
SIC - 36
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	80250	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	7850	9.79	N/A
FINANCIAL MANAGERS	820	1.02	17.02
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	310	0.39	16.41
PURCHASING MANAGERS	280	0.35	23.90
MARKETING, ADVERTISING AND RELATED MANAGERS	1000	1.25	22.81
ADMINISTRATIVE SERVICE MANAGERS	210	0.26	24.66
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	1330	1.66	12.61
INDUSTRIAL PRODUCTION MANAGERS	1580	1.97	14.54
GENERAL MANAGERS AND TOP EXECUTIVES	1490	1.86	18.75
ALL OTHER MANAGERS AND ADMINISTRATORS	830	1.03	33.96
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	20860	25.96	N/A
ACCOUNTANTS AND AUDITORS	660	0.82	11.03
BUDGET ANALYSTS	390	0.49	14.56
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	730	0.91	14.64
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	380	0.47	6.47
COST ESTIMATORS	190	0.24	29.52
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	70	0.09	28.26
CHEMICAL ENGINEERS	120	0.15	19.34
CIVIL ENGINEERS, INCLUDING TRAFFIC ENGINEERS	10	0.01	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	4850	6.04	26.50
COMPUTER ENGINEERS	580	0.72	29.60
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	1170	1.46	15.59
SAFETY ENGINEERS, EXCEPT MINING	40	0.05	27.32
MECHANICAL ENGINEERS	1030	1.28	13.19
ALL OTHER ENGINEERS	540	0.67	29.09
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	3680	4.59	13.85
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	990	1.23	21.07
DRAFTERS	1070	1.33	24.06
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	660	0.82	28.65
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.01	28.57
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	60	0.07	29.06
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	10	0.01	28.87
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	910	1.13	17.73
COMPUTER PROGRAMMERS	170	0.21	23.18
OPERATIONS AND SYSTEMS RESEARCHERS	80	0.10	12.39
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	60	0.07	9.57

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT
SIC - 36
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	2400	2.99	32.61
SALES AND RELATED OCCUPATIONS	2020	2.53	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	310	0.39	20.93
SALES ENGINEERS	490	0.61	33.71
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	630	0.79	22.93
ALL OTHER SALES AND RELATED WORKERS	590	0.74	29.28
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	9270	11.55	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	430	0.54	17.90
ADJUSTMENT CLERKS	340	0.42	22.54
SECRETARIES	1660	2.07	11.09
STENOGRAPHERS	30	0.04	12.85
RECEPTIONISTS AND INFORMATION CLERKS	140	0.17	25.88
TYPISTS	140	0.17	24.32
TYPISTS, WORD PROCESSING EQUIPMENT	80	0.10	26.39
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	150	0.19	13.24
FILE CLERKS	60	0.07	24.65
PROCUREMENT CLERKS	150	0.19	33.00
STATISTICAL CLERKS	30	0.04	22.04
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	900	1.12	13.33
PAYROLL AND TIMEKEEPING CLERKS	200	0.25	21.01
BILLING, COST AND RATE CLERKS	130	0.16	21.02
GENERAL OFFICE CLERK	890	1.11	23.11
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	300	0.37	14.56
PERIPHERAL EDP EQUIPMENT OPERATORS	60	0.07	26.59
DATA ENTRY KEYERS, EXCEPT COMPOSING	180	0.22	19.73
ALL OTHER OFFICE MACHINE OPERATORS	20	0.03	24.99
SWITCHBOARD OPERATOR	200	0.25	18.50
PRODUCTION, PLANNING, EXPEDITING CLERKS	1160	1.45	15.54
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	720	0.90	16.97
TRAFFIC, SHIPPING AND RECEIVING CLERKS	660	0.82	18.55
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	640	0.80	34.65
SERVICE OCCUPATIONS	1070	1.33	N/A
GUARDS AND WATCH GUARDS	210	0.26	29.35
JANITORS AND CLEANERS	560	0.70	22.58
ALL OTHER SERVICE WORKERS	300	0.37	40.09

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT
SIC - 36
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	10	0.01	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	39170	48.83	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	330	0.41	21.73
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	2230	2.78	8.57
PRECISION INSPECTORS, TESTERS, AND GRADERS	1670	2.08	16.86
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	1900	2.37	30.96
MACHINERY MAINTENANCE MECHANICS	390	0.49	22.00
MILLWRIGHTS	90	0.11	30.78
MACHINERY MAINTENANCE WORKERS	30	0.04	25.84
MAINTENANCE REPAIRERS, GENERAL UTILITY	310	0.39	16.74
DATA PROCESSING EQUIPMENT REPAIRERS	10	0.01	27.21
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	70	0.09	10.93
PRECISION INSTRUMENT REPAIRERS	50	0.06	15.47
CARPENTERS	110	0.14	30.31
ELECTRICIANS	170	0.21	12.35
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	70	0.09	34.07
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	50	0.06	6.78
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	20	0.03	4.55
MACHINISTS	710	0.89	28.54
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	70	0.09	27.22
SHEET METAL WORKERS	170	0.21	27.56
ALL OTHER PRECISION WORKERS	950	1.18	41.28
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	30	0.04	23.89
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	50	0.06	31.52
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	300	0.37	13.52
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	140	0.17	20.14
MACHINE FORM OPERATORS, METAL AND PLASTICS	340	0.42	24.35
WELDING MACHINE SETTERS AND SET-UP OPERATORS	90	0.11	27.20
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	100	0.13	24.70
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	70	0.09	5.00
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	130	0.16	24.66
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	20	0.03	23.98
FURNACE OPERATORS AND TENDERS	60	0.07	8.08
PRINTING PRESS MACHINE OPERATORS	10	0.01	0.00
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	10	0.01	33.33
ALL OTHER MACHINE SETTERS	1520	1.89	44.95
ALL OTHER MACHINE OPERATORS	3230	4.03	58.36
MACHINE BUILDERS AND OTHER PRECISION MACHINE	190	0.24	20.32

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT
SIC - 36
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	1420	1.77	27.90
ALL OTHER PRECISION METAL ASSEMBLERS	3500	4.36	34.10
ELECTRICAL AND ELECTRONIC ASSEMBLERS	6810	8.49	31.65
WELDERS AND CUTTERS	200	0.25	21.66
HAND ENGRAVING AND PRINTING WORKERS	60	0.08	33.13
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	5850	7.29	24.57
ALL OTHER HAND WORKERS	1980	2.47	71.64
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.03	63.33
ALL OTHER TRANSPORTATION WORKERS	140	0.17	52.80
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	230	0.29	22.40
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	50	0.06	73.28
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	850	1.06	27.61
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	2370	2.95	49.39

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRIC DISTRIBUTION EQUIPMENT
SIC - 361
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3370	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	6.84	N/A
FINANCIAL MANAGERS	20	0.59	11.66
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.30	0.00
PURCHASING MANAGERS	10	0.30	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.30	0.00
ADMINISTRATIVE SERVICE MANAGERS	10	0.30	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	0.89	13.35
INDUSTRIAL PRODUCTION MANAGERS	30	0.89	13.79
GENERAL MANAGERS AND TOP EXECUTIVES	70	2.08	12.78
ALL OTHER MANAGERS AND ADMINISTRATORS	40	1.19	15.77
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	450	13.35	N/A
ACCOUNTANTS AND AUDITORS	10	0.29	0.00
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	0.89	7.40
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.30	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
ELECTRICAL AND ELECTRONIC ENGINEERS	60	1.78	14.23
COMPUTER ENGINEERS	20	0.59	29.35
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.30	14.43
MECHANICAL ENGINEERS	40	1.19	4.55
ALL OTHER ENGINEERS	20	0.59	23.53
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	80	2.37	13.40
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.30	0.00
DRAFTERS	100	2.97	17.07
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	10	0.29	0.00
COMPUTER PROGRAMMERS	10	0.29	0.00
COMPUTER PROGRAMMER AIDES	10	0.30	0.00
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	10	0.30	16.66
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.30	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.30	54.39
SALES AND RELATED OCCUPATIONS	200	5.93	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	40	1.19	38.13
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	50	1.48	24.65

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRIC DISTRIBUTION EQUIPMENT
SIC - 361
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	20	0.59	37.09
ALL OTHER SALES AND RELATED WORKERS	90	2.67	31.62
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	410	12.15	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.29	0.00
ADJUSTMENT CLERKS	20	0.59	29.30
SECRETARIES	60	1.78	13.66
RECEPTIONISTS AND INFORMATION CLERKS	10	0.29	0.00
TYPISTS	20	0.59	9.52
FILE CLERKS	10	0.30	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.30	18.63
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	40	1.19	12.42
PAYROLL AND TIMEKEEPING CLERKS	20	0.59	0.00
GENERAL OFFICE CLERK	10	0.30	33.07
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.30	0.00
DATA ENTRY KEYERS, EXCEPT COMPOSING	20	0.59	11.76
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	10	0.30	12.49
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.89	8.60
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	80	2.37	5.83
TRAFFIC, SHIPPING AND RECEIVING CLERKS	50	1.48	9.80
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
SERVICE OCCUPATIONS	20	0.59	N/A
JANITORS AND CLEANERS	20	0.59	7.53
ALL OTHER SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2060	61.14	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	130	3.86	6.14
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	40	1.19	19.83
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	70	2.08	6.71
MACHINERY MAINTENANCE MECHANICS	10	0.30	10.10
MACHINERY MAINTENANCE WORKERS	10	0.30	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.30	14.28
ELECTRICIANS	10	0.30	38.72
TOOL AND DIE MAKERS	20	0.59	9.52
MACHINISTS	30	0.89	39.12

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N/A NOT AVAILABLE.

ELECTRIC DISTRIBUTION EQUIPMENT
SIC - 361
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SHEET METAL WORKERS	30	0.89	45.87
ALL OTHER PRECISION WORKERS	30	0.89	58.67
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	10	0.30	0.00
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	50	1.48	8.41
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	10	0.30	14.14
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	10	0.30	23.57
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	40	1.19	16.65
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	60	1.78	15.49
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	40	1.19	17.20
MACHINE FORM OPERATORS, METAL AND PLASTICS	10	0.29	0.00
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	20	0.59	9.52
WELDING MACHINE OPERATORS AND TENDERS	10	0.30	48.98
SOLDERING AND BRAZING MACHINE OPERATORS AND TENDERS	10	0.30	17.49
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	20	0.59	0.00
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	20	0.59	0.00
ALL OTHER PRINTING RELATED SETTERS AND SET-UP OPERATORS	**	N/A	N/A
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	10	0.30	22.26
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.30	47.14
ALL OTHER MACHINE SETTERS	10	0.30	23.57
ALL OTHER MACHINE OPERATORS	80	2.37	22.49
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	200	5.93	17.91
ELECTRICAL AND ELECTRONIC ASSEMBLERS	360	10.68	9.40
COIL WINDERS, TAPERS AND FINISHERS	130	3.86	13.73
WELDERS AND CUTTERS	80	2.37	21.74
GRINDING AND POLISHING WORKERS, HAND	20	0.59	25.64
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	330	9.79	15.19
ALL OTHER HAND WORKERS	60	1.78	23.53
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.30	34.64
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	30	0.89	5.43
HAND PACKERS AND PACKAGERS	30	0.89	17.63

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRICAL INDUSTRIAL APPARATUS
SIC - 362
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6140	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	380	6.20	N/A
FINANCIAL MANAGERS	30	0.49	22.31
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.16	15.74
PURCHASING MANAGERS	20	0.33	11.54
MARKETING, ADVERTISING AND RELATED MANAGERS	40	0.65	4.55
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	30	0.49	15.80
INDUSTRIAL PRODUCTION MANAGERS	40	0.65	15.11
GENERAL MANAGERS AND TOP EXECUTIVES	120	1.96	9.92
ALL OTHER MANAGERS AND ADMINISTRATORS	90	1.47	1.62
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	850	13.83	N/A
ACCOUNTANTS AND AUDITORS	10	0.16	23.69
BUDGET ANALYSTS	20	0.33	0.00
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	40	0.65	8.24
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	20	0.33	10.82
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	20	0.33	0.00
CHEMICAL ENGINEERS	70	1.14	0.00
CIVIL ENGINEERS, INCLUDING TRAFFIC ENGINEERS	10	0.16	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	70	1.14	17.39
COMPUTER ENGINEERS	10	0.16	44.72
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.16	21.65
MECHANICAL ENGINEERS	90	1.47	14.84
ALL OTHER ENGINEERS	80	1.30	0.00
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	180	2.93	2.24
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	50	0.81	0.00
DRAFTERS	60	0.98	9.11
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	80	1.30	11.77
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	10	0.16	0.00
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	**	N/A	N/A
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.16	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.16	17.32
SALES AND RELATED OCCUPATIONS	90	1.46	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.16	28.57
SALES ENGINEERS	50	0.81	21.41

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRICAL INDUSTRIAL APPARATUS
SIC - 362
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.16	39.76
ALL OTHER SALES AND RELATED WORKERS	20	0.33	51.81
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	540	8.79	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	40	0.65	4.02
ADJUSTMENT CLERKS	30	0.49	15.80
SECRETARIES	70	1.14	3.02
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.16	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	20	0.33	24.49
PROCUREMENT CLERKS	10	0.16	15.74
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	60	0.98	14.71
PAYROLL AND TIMEKEEPING CLERKS	10	0.16	24.74
BILLING, COST AND RATE CLERKS	40	0.65	5.12
GENERAL OFFICE CLERK	50	0.81	15.16
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.16	24.74
SWITCHBOARD OPERATOR	10	0.16	28.86
PRODUCTION, PLANNING, EXPEDITING CLERKS	90	1.47	2.27
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	30	0.49	23.57
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	0.49	8.44
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	0.49	31.14
SERVICE OCCUPATIONS	60	0.98	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.16	0.00
GUARDS AND WATCH GUARDS	20	0.33	0.00
JANITORS AND CLEANERS	30	0.49	11.53
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	10	0.16	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4210	68.58	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	30	0.49	6.66
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	140	2.28	4.89
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.16	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	160	2.61	5.75
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	30	0.49	24.25
MACHINERY MAINTENANCE MECHANICS	10	0.16	17.20
MILLWRIGHTS	20	0.33	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	30	0.49	8.26
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	20	0.33	0.00

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRICAL INDUSTRIAL APPARATUS
SIC - 362
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
CARPENTERS	20	0.33	0.00
ELECTRICIANS	20	0.33	0.00
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	20	0.33	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	20	0.33	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	20	0.33	0.00
TOOL AND DIE MAKERS	20	0.33	0.00
MACHINISTS	60	0.98	24.31
SHEET METAL WORKERS	10	0.16	0.00
ALL OTHER PRECISION METAL WORKERS	10	0.16	0.00
ALL OTHER PRECISION WORKERS	10	0.16	62.20
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	40	0.65	9.48
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	10	0.16	0.00
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	30	0.49	29.29
MACHINE TOOL CUTTING OPERATORS	10	0.16	31.18
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	130	2.12	0.00
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	20	0.33	0.00
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	50	0.81	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	80	1.30	0.00
SOLDERING AND BRAZING MACHINE OPERATORS AND TENDERS	10	0.16	0.00
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	10	0.16	0.00
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	50	0.81	0.00
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	60	0.98	5.63
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	20	0.33	0.00
FURNACE OPERATORS AND TENDERS	40	0.65	0.00
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	80	1.30	11.24
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	60	0.98	17.46
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	30	0.49	0.00
ALL OTHER MACHINE SETTERS	10	0.16	30.30
ALL OTHER MACHINE OPERATORS	**	N/A	N/A
MACHINE BUILDERS AND OTHER PRECISION MACHINE	120	1.95	6.50
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	60	0.98	48.02
ALL OTHER PRECISION METAL ASSEMBLERS	220	3.58	18.83
ELECTRICAL AND ELECTRONIC ASSEMBLERS	280	4.56	44.75
COIL WINDERS, TAPERS AND FINISHERS	80	1.30	26.35
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	1770	28.83	2.52
ALL OTHER HAND WORKERS	70	1.14	76.92
TRUCK DRIVERS, HEAVY	10	0.16	0.00
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
MECHANIC AND REPAIRER HELPERS	20	0.33	13.15
MACHINE FEEDERS AND OFFBEARERS	10	0.16	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	160	2.61	4.11
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.16	22.05

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N/A NOT AVAILABLE.

ELECTRONIC COMPONENTS AND ACCESSORIES
SIC - 367
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	37200	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	4230	11.37	N/A
FINANCIAL MANAGERS	360	0.97	14.60
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	150	0.40	8.41
PURCHASING MANAGERS	130	0.35	15.83
MARKETING, ADVERTISING AND RELATED MANAGERS	560	1.50	12.03
ADMINISTRATIVE SERVICE MANAGERS	70	0.19	12.92
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	790	2.12	6.48
INDUSTRIAL PRODUCTION MANAGERS	1130	3.04	12.43
GENERAL MANAGERS AND TOP EXECUTIVES	780	2.10	22.66
ALL OTHER MANAGERS AND ADMINISTRATORS	260	0.70	26.90
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	10180	27.34	N/A
ACCOUNTANTS AND AUDITORS	320	0.86	12.84
BUDGET ANALYSTS	120	0.32	9.55
ALL OTHER FINANCIAL SPECIALISTS	100	0.27	20.72
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	320	0.86	11.01
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	190	0.51	5.33
COST ESTIMATORS	30	0.08	25.35
ALL OTHER MANAGEMENT SUPPORT WORKERS	320	0.86	12.12
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	30	0.08	39.76
CHEMICAL ENGINEERS	10	0.03	34.40
ELECTRICAL AND ELECTRONIC ENGINEERS	2170	5.83	7.96
COMPUTER ENGINEERS	400	1.07	20.04
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	740	1.99	18.32
SAFETY ENGINEERS, EXCEPT MINING	20	0.05	18.74
MECHANICAL ENGINEERS	570	1.53	10.63
ALL OTHER ENGINEERS	230	0.62	23.84
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	1910	5.13	10.73
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	70	0.19	36.73
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	690	1.85	6.58
DRAFTERS	550	1.48	30.47
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	320	0.86	24.03
PHYSICISTS AND ASTRONOMERS	10	0.03	36.05
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	20	0.05	38.36
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	490	1.32	11.98
COMPUTER PROGRAMMERS	90	0.24	8.46
COMPUTER PROGRAMMER AIDES	10	0.03	45.81

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N/A NOT AVAILABLE.

ELECTRONIC COMPONENTS AND ACCESSORIES
SIC - 367
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	40	0.11	48.57
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
OPERATIONS AND SYSTEMS RESEARCHERS	80	0.21	13.00
LAWYERS	10	0.03	0.00
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	30	0.08	12.47
WRITERS AND EDITORS	30	0.08	38.08
TECHNICAL WRITERS	80	0.21	20.72
DESIGNERS, EXCEPT INTERIOR DESIGNERS	60	0.16	15.89
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	120	0.32	17.88
SALES AND RELATED OCCUPATIONS	890	2.39	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	150	0.40	18.46
SALES ENGINEERS	180	0.48	8.21
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	300	0.81	24.96
ALL OTHER SALES AND RELATED WORKERS	260	0.70	30.98
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	3870	10.43	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	200	0.54	14.40
ADJUSTMENT CLERKS	140	0.38	18.48
SECRETARIES	840	2.26	6.30
RECEPTIONISTS AND INFORMATION CLERKS	40	0.11	33.40
TYPISTS	40	0.11	45.07
TYPISTS, WORD PROCESSING EQUIPMENT	30	0.08	24.26
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	40	0.11	16.92
FILE CLERKS	30	0.08	25.25
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	70	0.19	21.53
PROCUREMENT CLERKS	70	0.19	18.30
STATISTICAL CLERKS	10	0.03	33.33
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	320	0.86	14.98
PAYROLL AND TIMEKEEPING CLERKS	60	0.16	21.55
BILLING, COST AND RATE CLERKS	30	0.08	28.44
GENERAL OFFICE CLERK	200	0.54	17.49
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	140	0.38	13.26
PERIPHERAL EDP EQUIPMENT OPERATORS	10	0.03	28.86
DATA ENTRY KEYERS, EXCEPT COMPOSING	80	0.21	16.49
ALL OTHER OFFICE MACHINE OPERATORS	20	0.05	27.77
SWITCHBOARD OPERATOR	110	0.30	21.12
PRODUCTION, PLANNING, EXPEDITING CLERKS	580	1.56	8.56
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	330	0.89	17.22

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N/A NOT AVAILABLE.

ELECTRONIC COMPONENTS AND ACCESSORIES
SIC - 367
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
TRAFFIC, SHIPPING AND RECEIVING CLERKS	340	0.91	16.13
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	30	0.08	47.02
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	110	0.30	8.33
SERVICE OCCUPATIONS	430	1.16	N/A
FIRST LINE SUPERVISORS - SERVICE	130	0.35	39.97
GUARDS AND WATCH GUARDS	70	0.19	16.24
JANITORS AND CLEANERS	190	0.51	15.48
ALL OTHER SERVICE WORKERS	40	0.11	63.04
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	17600	47.31	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	140	0.38	19.09
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	1100	2.96	9.89
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.05	45.06
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	20	0.05	37.49
ALL OTHER PRODUCTION WORKER SUPERVISORS	20	0.05	36.26
PRECISION INSPECTORS, TESTERS, AND GRADERS	1150	3.09	13.92
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	980	2.63	22.99
MACHINERY MAINTENANCE MECHANICS	120	0.32	16.81
MILLWRIGHTS	10	0.03	28.28
MACHINERY MAINTENANCE WORKERS	10	0.03	19.99
MAINTENANCE REPAIRERS, GENERAL UTILITY	150	0.40	13.85
DATA PROCESSING EQUIPMENT REPAIRERS	10	0.03	30.61
ELECTRONICS REPAIRERS, INDUSTRIAL EQUIPMENT	10	0.03	37.26
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	20	0.05	11.13
PRECISION INSTRUMENT REPAIRERS	20	0.05	9.62
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.03	44.85
ELECTRICIANS	30	0.08	9.58
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.03	28.57
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	10	0.03	16.66
MACHINISTS	360	0.97	28.67
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	40	0.11	23.17
ALL OTHER PRECISION WORKERS	100	0.27	61.02
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	20	0.05	33.54
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	10	0.03	48.65
MACHINE TOOL CUTTING OPERATORS	80	0.21	31.56
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.03	27.63
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	20	0.05	48.21
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	100	0.27	40.38

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

ELECTRONIC COMPONENTS AND ACCESSORIES
SIC - 367
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
WELDING MACHINE SETTERS AND SET-UP OPERATORS	60	0.16	19.35
SOLDERING AND BRAZING MACHINE SETTERS AND SET-UP OPERATOR	10	0.03	37.41
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	10	0.03	28.28
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	60	0.16	45.64
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	20	0.05	25.24
FURNACE OPERATORS AND TENDERS	20	0.05	31.26
ELECTRONIC SEMICONDUCTOR PROCESSORS	1060	2.85	44.64
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	40	0.11	48.48
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	20	0.05	29.99
ALL OTHER MACHINE SETTERS	730	1.96	58.00
ALL OTHER MACHINE OPERATORS	760	2.04	89.46
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	850	2.29	19.79
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	2060	5.54	37.80
MACHINE ASSEMBLERS	100	0.27	47.13
ELECTRICAL AND ELECTRONIC ASSEMBLERS	3470	9.33	26.10
WELDERS AND CUTTERS	50	0.13	23.00
HAND ENGRAVING AND PRINTING WORKERS	10	0.03	24.84
GRINDING AND POLISHING WORKERS, HAND	10	0.03	41.45
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	1960	5.27	30.50
ALL OTHER HAND WORKERS	1010	2.72	96.62
ALL OTHER PLANT AND SYSTEM OPERATORS	20	0.05	57.03
TRUCK DRIVERS, HEAVY	10	0.03	0.00
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	0.05	43.03
MECHANIC AND REPAIRER HELPERS	10	0.03	27.27
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	90	0.24	43.46
HAND PACKERS AND PACKAGERS	50	0.13	43.58
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	510	1.37	35.54

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS ELECTRICAL EQUIPMENT AND SUPPLIES
SIC - 369
REFERENCE DATE JUNE, 1989

OCCUPATION TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	4100	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	340	8.31	N/A
FINANCIAL MANAGERS	30	0.73	24.41
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.49	14.14
PURCHASING MANAGERS	20	0.49	5.88
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.73	13.20
ADMINISTRATIVE SERVICE MANAGERS	20	0.49	22.90
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	80	1.95	30.44
INDUSTRIAL PRODUCTION MANAGERS	40	0.98	11.94
GENERAL MANAGERS AND TOP EXECUTIVES	90	2.20	16.55
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.25	47.14
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	800	19.57	N/A
ACCOUNTANTS AND AUDITORS	30	0.73	9.30
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	0.73	21.87
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.25	9.09
COST ESTIMATORS	10	0.25	40.06
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.73	42.94
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	10	0.25	32.73
CHEMICAL ENGINEERS	20	0.49	34.10
ELECTRICAL AND ELECTRONIC ENGINEERS	70	1.71	27.26
COMPUTER ENGINEERS	30	0.73	33.83
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	20	0.49	19.28
MECHANICAL ENGINEERS	140	3.42	15.73
CIVIL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	30	0.73	44.31
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	110	2.68	20.16
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.25	30.76
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	90	2.20	27.75
DRAFTERS	50	1.22	24.23
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.49	34.80
PHYSICISTS AND ASTRONOMERS	10	0.25	39.22
CHEMISTS, EXCEPT BIOCHEMISTS	10	0.25	33.33
ALL OTHER PHYSICAL SCIENTISTS	**	N/A	N/A
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	20	0.49	18.42
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.49	15.56
COMPUTER PROGRAMMERS	20	0.49	45.17
DESIGNERS, EXCEPT INTERIOR DESIGNERS	10	0.25	14.28

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS ELECTRICAL EQUIPMENT AND SUPPLIES
SIC - 369
REFERENCE DATE JUNE, 1989

OCCUPATION TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SALES AND RELATED OCCUPATIONS	130	3.18	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	30	0.73	14.65
SALES ENGINEERS	10	0.25	13.32
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	60	1.46	4.48
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.25	19.99
ALL OTHER SALES AND RELATED WORKERS	20	0.49	6.14
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	580	14.13	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	20	0.49	17.17
ADJUSTMENT CLERKS	30	0.73	6.66
SECRETARIES	80	1.95	10.28
STENOGRAPHERS	20	0.49	0.00
RECEPTIONISTS AND INFORMATION CLERKS	30	0.73	10.90
TYPISTS	20	0.49	0.00
TYPISTS, WORD PROCESSING EQUIPMENT	20	0.49	10.18
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.24	0.00
FILE CLERKS	10	0.24	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	20	0.49	11.76
PROCUREMENT CLERKS	10	0.24	14.14
STATISTICAL CLERKS	10	0.24	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	50	1.22	9.08
PAYROLL AND TIMEKEEPING CLERKS	20	0.49	49.99
BILLING, COST AND RATE CLERKS	10	0.24	7.69
GENERAL OFFICE CLERK	50	1.22	17.07
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	10	0.24	0.00
SWITCHBOARD OPERATOR	10	0.24	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.73	15.15
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	40	0.98	8.33
TRAFFIC, SHIPPING AND RECEIVING CLERKS	30	0.73	27.18
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	30	0.73	8.82
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	0.49	8.31
SERVICE OCCUPATIONS	20	0.49	N/A
JANITORS AND CLEANERS	20	0.49	21.82
ALL OTHER SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2230	54.32	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.49	8.66

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS ELECTRICAL EQUIPMENT AND SUPPLIES
SIC - 369
REFERENCE DATE JUNE, 1989

OCCUPATION TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	120	2.93	4.96
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.49	14.69
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.24	44.09
PRECISION INSPECTORS, TESTERS, AND GRADERS	70	1.71	5.32
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	70	1.71	20.84
MACHINERY MAINTENANCE MECHANICS	80	1.95	8.53
MILLWRIGHTS	10	0.24	0.00
MACHINERY MAINTENANCE WORKERS	10	0.24	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	0.49	12.29
ELECTRONICS REPAIRERS, INDUSTRIAL EQUIPMENT	40	0.98	11.14
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	10	0.24	0.00
PRECISION INSTRUMENT REPAIRERS	20	0.49	0.00
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.24	0.00
ELECTRICIANS	10	0.24	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
TOOL AND DIE MAKERS	40	0.98	12.08
MACHINISTS	40	0.98	23.89
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	10	0.24	31.18
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	10	0.24	0.00
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	10	0.24	0.00
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	10	0.24	0.00
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	10	0.24	0.00
MACHINE TOOL CUTTING OPERATORS	10	0.24	0.00
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	10	0.24	17.32
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	10	0.24	28.28
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS,	10	0.24	42.82
MACHINE FORM OPERATORS, METAL AND PLASTICS	70	1.71	2.37
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	60	1.46	11.70
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	20	0.49	0.00
METAL MOLDING, COREMAKING AND CASTING MACHINE SETTERS	10	0.24	48.03
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	20	0.49	47.59
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	10	0.24	35.13
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.24	40.82
PACKAGING AND FILLING MACHINE OPERATORS	10	0.24	47.14
ALL OTHER MACHINE SETTERS	30	0.73	47.75
ALL OTHER MACHINE OPERATORS	50	1.22	89.09
MACHINE BUILDERS AND OTHER PRECISION MACHINE	10	0.24	39.99
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	290	7.07	28.18
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	10	0.24	38.18
ELECTRICAL AND ELECTRONIC ASSEMBLERS	440	10.73	20.07
COIL WINDERS, TAPERS AND FINISHERS	10	0.24	40.40

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS ELECTRICAL EQUIPMENT AND SUPPLIES
SIC - 369
REFERENCE DATE JUNE, 1989

OCCUPATION TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
SOLDERERS AND BRAZERS	20	0.49	22.78
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	160	3.90	17.82
ALL OTHER HAND WORKERS	20	0.49	49.78
ALL OTHER TRANSPORTATION WORKERS	10	0.24	57.14
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	0.73	5.97
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.24	27.73
MECHANIC AND REPAIRER HELPERS	20	0.49	0.00
MACHINE FEEDERS AND OFFBEARERS	10	0.24	44.18
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	70	1.71	15.83
HAND PACKERS AND PACKAGERS	130	3.17	14.93
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.24	27.95

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MOTOR VEHICLES AND EQUIPMENT (SIC 371)
AIRCRAFT AND PARTS (SIC 372)
SHIP AND BOAT BUILDING AND REPAIRING (SIC 373)

Industry Description

Establishments in these industry groups are engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water.

Employment Trends

Employment in these industry groups for June 1989 totalled 13,840 workers. The aircraft and parts industry had 9,580 workers, more than double the size of the two other combined industries. Motor vehicles and equipment employed 2,960 workers, and ship and boat building and repairing employed 1,300.

Occupational Structure

The ten highest ranked occupations in these three combined industries totalled 4,710 jobs. Seven of the 10 highest ranked occupations were in the production and maintenance category accounting for 3,530 workers or 25.5 percent of all jobs in these combined industries.

TOP TEN OCCUPATIONS

Occupation	Jobs
Machinists (Sic 372)	700
All Other Hand Workers (Sic 371)	690
Production Inspectors, Testers, Graders, Sorters, Samplers (Sic 372)	580
Mechanical Engineers (Sic 372)	550
Assemblers and Fabricators-Except Machine, Electrical (Sic 372)	470
Lathe & Turning Machine Tool Setters & Set-Up Operators (Sic 372)	400
All Other Machine Operators (Sic 371)	360
Aeronautical and Astronautical Engineers (Sic 372)	330
Milling & Planing Machine Setters & Set-Up Operators (Sic 372)	330
Industrial Production Managers (Sic 372)	300

MOTOR VEHICLES AND EQUIPMENT
SIC - 371
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	2960	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	100	3.38	N/A
FINANCIAL MANAGERS	10	0.34	11.78
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.34	28.28
INDUSTRIAL PRODUCTION MANAGERS	20	0.68	7.87
GENERAL MANAGERS AND TOP EXECUTIVES	40	1.35	7.18
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.67	0.00
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	150	5.06	N/A
ACCOUNTANTS AND AUDITORS	20	0.67	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.67	7.85
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.34	0.00
COST ESTIMATORS	10	0.34	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	**	N/A	N/A
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.34	0.00
MECHANICAL ENGINEERS	30	1.01	29.11
ALL OTHER ENGINEERS	30	1.01	0.00
DRAFTERS	10	0.34	45.06
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	**	N/A	N/A
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.34	37.50
SALES AND RELATED OCCUPATIONS	10	0.34	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.34	27.48
ALL OTHER SALES AND RELATED WORKERS	**	N/A	N/A
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	140	4.75	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.34	24.05
SECRETARIES	20	0.67	20.85
STATISTICAL CLERKS	10	0.34	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	0.68	15.59
GENERAL OFFICE CLERK	10	0.34	20.20
PRODUCTION, PLANNING, EXPEDITING CLERKS	20	0.68	13.15
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	20	0.68	9.09
TRAFFIC, SHIPPING AND RECEIVING CLERKS	20	0.68	7.85
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	10	0.34	69.74

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MOTOR VEHICLES AND EQUIPMENT
SIC - 371
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	90	3.03	N/A
GUARDS AND WATCH GUARDS	20	0.67	0.00
JANITORS AND CLEANERS	70	2.36	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2470	83.44	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.68	11.66
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	60	2.03	7.10
ALL OTHER PRODUCTION WORKER SUPERVISORS	30	1.01	0.00
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.67	42.43
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	80	2.70	11.30
TRANSPORTATION INSPECTORS	10	0.34	44.09
MACHINERY MAINTENANCE MECHANICS	10	0.34	46.83
MILLWRIGHTS	110	3.71	48.04
MACHINERY MAINTENANCE WORKERS	30	1.01	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.34	41.57
AUTOMOTIVE MECHANICS	10	0.34	38.18
BUS AND TRUCK MECHANICS AND DIESEL MECHANICS	10	0.34	27.66
ELECTRICAL INSTALLERS AND REPAIRERS, TRANSPORTATION EQUIP	10	0.34	42.49
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	30	1.01	0.00
ELECTRICIANS	40	1.35	8.88
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.34	24.74
TOOL AND DIE MAKERS	30	1.01	0.00
MACHINISTS	10	0.34	12.85
PRECISION LAYOUT WORKERS, METAL	10	0.34	21.65
SHEET METAL WORKERS	110	3.71	21.27
ALL OTHER PRECISION METAL WORKERS	30	1.01	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	20	0.68	42.00
WELDING MACHINE SETTERS AND SET-UP OPERATORS	30	1.01	45.50
WELDING MACHINE OPERATORS AND TENDERS	10	0.34	37.26
PAINTERS, TRANSPORTATION EQUIPMENT	50	1.69	18.79
ALL OTHER MACHINE SETTERS	10	0.34	47.13
ALL OTHER MACHINE OPERATORS	360	12.16	5.60
WELDERS AND CUTTERS	220	7.43	4.23
SOLDERERS AND BRAZERS	10	0.34	0.00
GRINDING AND POLISHING WORKERS, HAND	50	1.69	0.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	90	3.04	15.33
ALL OTHER HAND WORKERS	690	23.31	4.51
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.34	0.00
ALL OTHER MOTOR VEHICLE OPERATORS	10	0.34	0.00

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MOTOR VEHICLES AND EQUIPMENT
SIC - 371
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	30	1.01	0.00
CONVEYOR OPERATORS AND TENDERS	40	1.35	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	10	0.34	28.86
VEHICLE WASHERS AND EQUIPMENT CLEANERS	100	3.38	0.00
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	50	1.69	22.63

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

AIRCRAFT AND PARTS
SIC - 372
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	9580	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	660	6.89	N/A
FINANCIAL MANAGERS	30	0.31	6.99
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.21	7.85
PURCHASING MANAGERS	30	0.31	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	30	0.31	0.00
ADMINISTRATIVE SERVICE MANAGERS	70	0.73	3.03
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	90	0.94	1.50
INDUSTRIAL PRODUCTION MANAGERS	300	3.13	2.95
GENERAL MANAGERS AND TOP EXECUTIVES	80	0.84	9.02
ALL OTHER MANAGERS AND ADMINISTRATORS	10	0.11	36.05
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	2600	27.19	N/A
ACCOUNTANTS AND AUDITORS	10	0.11	0.00
BUDGET ANALYSTS	10	0.11	0.00
ALL OTHER FINANCIAL SPECIALISTS	20	0.21	0.00
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	120	1.25	2.39
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	30	0.31	0.00
COST ESTIMATORS	70	0.73	2.07
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.21	0.00
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	330	3.45	1.49
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	30	0.31	0.00
CHEMICAL ENGINEERS	30	0.31	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	40	0.42	0.00
COMPUTER ENGINEERS	220	2.30	0.00
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	170	1.78	1.95
SAFETY ENGINEERS, EXCEPT MINING	10	0.11	0.00
MECHANICAL ENGINEERS	550	5.74	1.25
ALL OTHER ENGINEERS	10	0.11	0.00
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	60	0.63	0.00
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	30	0.31	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	70	0.73	0.00
DRAFTERS	260	2.71	0.86
PHYSICAL SCIENTISTS	10	0.11	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	120	1.25	0.00
COMPUTER PROGRAMMERS	50	0.52	11.47
COMPUTER PROGRAMMER AIDES	20	0.21	8.66
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	40	0.42	2.77

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

AIRCRAFT AND PARTS
SIC - 372
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
OPERATIONS AND SYSTEMS RESEARCHERS	80	0.84	0.00
STATISTICIANS	70	0.73	0.00
ALL OTHER MATHEMATICAL SCIENTISTS	50	0.52	0.00
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.11	0.00
TECHNICAL WRITERS	40	0.42	0.00
ARTISTS AND RELATED WORKERS	10	0.11	0.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.11	0.00
SALES AND RELATED OCCUPATIONS	30	0.33	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	10	0.11	40.06
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	10	0.11	33.52
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	10	0.11	23.57
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1100	11.48	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	70	0.73	4.87
ADJUSTMENT CLERKS	20	0.21	0.00
SECRETARIES	230	2.40	2.41
STENOGRAPHERS	30	0.31	0.00
TYPISTS	30	0.31	0.00
TYPISTS, WORD PROCESSING EQUIPMENT	100	1.04	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.21	0.00
PROCUREMENT CLERKS	20	0.21	0.00
STATISTICAL CLERKS	10	0.11	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	30	0.31	13.74
GENERAL OFFICE CLERK	30	0.31	26.76
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.11	0.00
ALL OTHER OFFICE MACHINE OPERATORS	10	0.11	0.00
SWITCHBOARD OPERATOR	10	0.10	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	250	2.61	1.61
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.10	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	160	1.67	1.26
TRAFFIC, SHIPPING AND RECEIVING CLERKS	40	0.42	9.21
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	0.21	0.00
SERVICE OCCUPATIONS	180	1.87	N/A
FIRST LINE SUPERVISORS - SERVICE	10	0.10	0.00
GUARDS AND WATCH GUARDS	20	0.21	11.76
JANITORS AND CLEANERS	140	1.46	6.71

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

AIRCRAFT AND PARTS
SIC - 372
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SERVICE WORKERS	10	0.10	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	5010	52.24	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.10	31.13
FIRST LINE SUPERVISORS - CONSTRUCTION AND RELATED	10	0.10	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	250	2.61	3.66
PRECISION INSPECTORS, TESTERS, AND GRADERS	150	1.57	7.71
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	580	6.05	3.05
MACHINERY MAINTENANCE MECHANICS	60	0.63	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	10	0.10	25.00
AUTOMOTIVE MECHANICS	10	0.10	0.00
ELECTRONICS REPAIRERS, INDUSTRIAL EQUIPMENT	30	0.31	0.00
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	10	0.10	0.00
PRECISION INSTRUMENT REPAIRERS	20	0.21	0.00
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	40	0.42	0.00
CARPENTERS	30	0.31	0.00
ELECTRICIANS	50	0.52	2.88
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.10	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	40	0.42	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	60	0.63	0.00
TOOL AND DIE MAKERS	70	0.73	4.34
MACHINISTS	700	7.31	13.33
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	100	1.04	12.98
SHEET METAL WORKERS	280	2.92	7.12
BOILERMAKERS	10	0.10	0.00
ALL OTHER PRECISION WORKERS	10	0.10	0.00
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	400	4.18	8.05
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPE	90	0.94	5.44
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	330	3.45	6.29
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	250	2.61	16.82
MACHINE TOOL CUTTING OPERATORS	50	0.52	31.05
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	30	0.31	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	50	0.52	35.86
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	190	1.98	20.64
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	50	0.52	46.72
WELDING MACHINE SETTERS AND SET-UP OPERATORS	40	0.42	3.53
WELDING MACHINE OPERATORS AND TENDERS	20	0.21	17.32
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	40	0.42	0.00
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	60	0.63	0.00
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	**	N/A	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

AIRCRAFT AND PARTS
SIC - 372
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINE ASSEMBLERS	30	0.31	0.00
ELECTRICAL AND ELECTRONIC ASSEMBLERS	10	0.10	0.00
WELDERS AND CUTTERS	120	1.25	1.49
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	470	4.91	0.29
ALL OTHER HAND WORKERS	10	0.10	52.11
STATIONARY ENGINEERS	30	0.31	0.00
ALL OTHER PLANT AND SYSTEM OPERATORS	10	0.10	0.00
TRUCK DRIVERS, HEAVY	10	0.10	20.20
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	20	0.21	14.40
ALL OTHER MOTOR VEHICLE OPERATORS	50	0.52	0.00
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	30	0.31	40.40
HAND PACKERS AND PACKAGERS	30	0.31	12.83
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	50	0.52	3.00

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SHIP AND BOAT BUILDING AND REPAIRING
SIC - 373
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	1300	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	120	9.23	N/A
FINANCIAL MANAGERS	10	0.77	0.00
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.77	0.00
PURCHASING MANAGERS	10	0.77	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.77	23.57
INDUSTRIAL PRODUCTION MANAGERS	20	1.54	18.02
GENERAL MANAGERS AND TOP EXECUTIVES	60	4.61	13.12
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	50	3.85	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	10	0.77	22.04
COST ESTIMATORS	10	0.77	47.14
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	10	0.77	0.00
MARINE ENGINEERS	10	0.77	44.44
ALL OTHER ENGINEERS	**	N/A	N/A
DRAFTERS	10	0.77	17.67
SALES AND RELATED OCCUPATIONS	30	2.31	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	20	1.54	26.93
ALL OTHER SALES AND RELATED WORKERS	10	0.77	43.30
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	130	10.01	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.77	31.71
SECRETARIES	20	1.54	17.39
PROCUREMENT CLERKS	10	0.77	23.57
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	20	1.54	21.32
PAYROLL AND TIMEKEEPING CLERKS	10	0.77	14.28
GENERAL OFFICE CLERK	10	0.77	27.73
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	30	2.31	17.62
TRAFFIC, SHIPPING AND RECEIVING CLERKS	10	0.77	28.57
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	10	0.77	44.09
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	970	74.60	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	1.54	30.72

1 SUMMED PARTS MAY NOT EQUAL TOTALS BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

SHIP AND BOAT BUILDING AND REPAIRING
SIC - 373
REFERENCE DATE JUNE, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	20	1.54	39.55
MACHINERY MAINTENANCE MECHANICS	10	0.77	43.58
MAINTENANCE REPAIRERS, GENERAL UTILITY	20	1.54	32.64
AUTOMOTIVE MECHANICS	20	1.54	40.98
RIGGERS	50	3.84	18.28
CARPENTERS	90	6.92	26.95
ELECTRICIANS	30	2.31	36.85
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	30	2.31	43.15
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	50	3.84	38.35
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
MACHINISTS	30	2.31	42.42
SHIPFITTERS	120	9.23	30.10
ALL OTHER PRECISION WORKERS	40	3.07	55.27
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	10	0.77	37.79
PAINTERS, TRANSPORTATION EQUIPMENT	20	1.54	34.29
ALL OTHER MACHINE SETTERS	20	1.54	55.94
ALL OTHER MACHINE OPERATORS	**	N/A	N/A
WELDERS AND CUTTERS	60	4.61	33.55
GRINDING AND POLISHING WORKERS, HAND	40	3.07	43.32
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	210	16.15	36.63
ALL OTHER HAND WORKERS	10	0.77	58.79
STATIONARY ENGINEERS	10	0.77	46.35
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.77	0.00
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.77	66.33
CONSTRUCTIVE TRADES, EXTRACTIVE WORKER HELPER	10	0.77	43.51
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	30	2.31	66.48

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEASURING AND CONTROLLING DEVICES(SIC 382)
MEDICAL INSTRUMENTS AND SUPPLIES(SIC 384)

Industry Description

Establishments in these industry groups are engaged in manufacturing laboratory apparatus and analytical, optical, measuring and controlling instruments; and surgical, medical, and dental instruments, equipment, and supplies.

Employment Trends

Employment in these two industries totalled 42,370 workers for the survey month. The employment in the measuring and controlling devices stood at 28,410 workers, more than double the size of medical instruments and supplies which had 13,900 workers.

Occupational Structure

The largest major occupational category of these two industries is the production and maintenance worker group with 16,030 jobs, representing 37.8 percent of their combined total employment at 42,370 jobs. Professional, paraprofessional, technical occupations comprise the second largest percentage share at 28.3 percent or 12,010 jobs. Eight of the ten highest ranked occupations listed below were in these two occupational categories.

TOP TEN OCCUPATIONS

Occupation	Jobs
Sales and Related Occupations(SIC 382)	1,480
Electromechanical Equipment Assemblers-Precision(SIC 382)	1,430
Electrical and Electronic Equipment Assemblers(SIC 382)	1,260
Assemblers and Fabricators-Ex Machine, Electrical(SIC 384)	1,190
Electrical and Electronic Engineers(SIC 382)	1,180
Secretaries(SIC 382)	1,020
Electrical, Electronic Engineering Technicians,Tech(SIC 382)	930
Mechanical Engineers(SIC 382)	780
Machinists(SIC 382)	750
Precision Inspectors, Testers, and Graders(SIC 382)	740

MEASURING AND CONTROLLING DEVICES
SIC - 382
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	28410	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	3220	11.34	N/A
FINANCIAL MANAGERS	270	0.95	11.11
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	130	0.46	15.54
PURCHASING MANAGERS	100	0.35	22.57
MARKETING, ADVERTISING AND RELATED MANAGERS	510	1.80	14.51
ADMINISTRATIVE SERVICE MANAGERS	120	0.42	20.01
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	600	2.11	13.11
INDUSTRIAL PRODUCTION MANAGERS	570	2.01	11.98
GENERAL MANAGERS AND TOP EXECUTIVES	590	2.08	13.46
ALL OTHER MANAGERS AND ADMINISTRATORS	330	1.16	22.10
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	8750	30.81	N/A
ACCOUNTANTS AND AUDITORS	300	1.06	24.42
BUDGET ANALYSTS	40	0.14	8.79
ALL OTHER FINANCIAL SPECIALISTS	110	0.39	15.61
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	270	0.95	10.54
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	130	0.46	9.95
COST ESTIMATORS	50	0.18	31.48
ALL OTHER MANAGEMENT SUPPORT WORKERS	260	0.92	23.06
CHEMICAL ENGINEERS	130	0.46	28.90
ELECTRICAL AND ELECTRONIC ENGINEERS	1180	4.15	12.36
COMPUTER ENGINEERS	690	2.43	17.64
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	330	1.16	26.79
MECHANICAL ENGINEERS	780	2.75	13.77
ALL OTHER ENGINEERS	600	2.11	16.61
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	930	3.27	16.63
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	90	0.32	35.34
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	350	1.23	16.34
DRAFTERS	420	1.48	20.09
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	560	1.97	18.73
CHEMISTS, EXCEPT BIOCHEMISTS	120	0.42	19.56
ALL OTHER PHYSICAL SCIENTISTS	20	0.07	38.29
LIFE SCIENTISTS	30	0.11	24.56
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	230	0.81	38.29
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	200	0.70	6.41
COMPUTER PROGRAMMERS	140	0.49	22.54
COMPUTER PROGRAMMER AIDES	30	0.11	12.87

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEASURING AND CONTROLLING DEVICES
SIC - 382
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	10	0.03	34.64
ALL OTHER COMPUTER SCIENTISTS	30	0.11	14.81
OPERATIONS AND SYSTEMS RESEARCHERS	20	0.07	20.38
WRITERS AND EDITORS	40	0.14	19.63
TECHNICAL WRITERS	120	0.42	21.65
DESIGNERS, EXCEPT INTERIOR DESIGNERS	140	0.49	16.00
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	400	1.41	53.28
SALES AND RELATED OCCUPATIONS	1480	5.20	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	190	0.67	15.54
SALES ENGINEERS	290	1.02	22.26
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	660	2.32	25.55
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	200	0.70	36.98
ALL OTHER SALES AND RELATED WORKERS	140	0.49	23.92
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	4160	14.67	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	270	0.95	13.23
ADJUSTMENT CLERKS	90	0.32	14.27
SECRETARIES	1020	3.59	10.10
RECEPTIONISTS AND INFORMATION CLERKS	90	0.32	22.65
TYPISTS	50	0.18	48.49
TYPISTS, WORD PROCESSING EQUIPMENT	70	0.25	37.37
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	60	0.21	12.69
FILE CLERKS	60	0.21	20.81
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	270	0.95	17.77
PROCUREMENT CLERKS	50	0.18	19.39
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	410	1.44	11.64
PAYROLL AND TIMEKEEPING CLERKS	50	0.18	16.12
BILLING, COST AND RATE CLERKS	70	0.25	29.39
GENERAL OFFICE CLERK	240	0.85	27.10
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	70	0.25	17.86
DATA ENTRY KEYERS, EXCEPT COMPOSING	80	0.28	11.83
SWITCHBOARD OPERATOR	100	0.35	17.21
PRODUCTION, PLANNING, EXPEDITING CLERKS	390	1.37	10.79
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.03	44.09
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	260	0.92	16.75
TRAFFIC, SHIPPING AND RECEIVING CLERKS	280	0.99	13.05
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	50	0.18	37.15
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	120	0.42	41.50

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEASURING AND CONTROLLING DEVICES
SIC - 382
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
SERVICE OCCUPATIONS	490	1.73	N/A
FIRST LINE SUPERVISORS - SERVICE	80	0.28	37.09
GUARDS AND WATCH GUARDS	120	0.42	13.51
JANITORS AND CLEANERS	260	0.92	14.15
ALL OTHER SERVICE WORKERS	30	0.11	84.42
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	10310	36.25	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	50	0.18	19.03
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	640	2.25	12.93
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	40	0.14	22.28
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	30	0.11	22.39
PRECISION INSPECTORS, TESTERS, AND GRADERS	740	2.61	18.88
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	230	0.81	23.44
MACHINERY MAINTENANCE MECHANICS	170	0.60	39.86
MACHINERY MAINTENANCE WORKERS	10	0.03	36.36
MAINTENANCE REPAIRERS, GENERAL UTILITY	100	0.35	21.34
PRECISION INSTRUMENT REPAIRERS	290	1.02	19.62
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	10	0.03	22.26
CARPENTERS	20	0.07	8.33
ELECTRICIANS	60	0.21	17.63
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	20	0.07	9.42
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	20	0.07	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
PRECISION INSTRUMENT MAKERS	440	1.55	32.41
MACHINISTS	750	2.64	22.39
PRECISION OPTICAL GOODS WORKERS	400	1.41	49.31
ALL OTHER PRECISION WORKERS	320	1.13	64.33
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	50	0.18	21.11
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	10	0.03	38.72
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	20	0.07	22.11
MACHINE TOOL CUTTING OPERATORS	160	0.56	48.75
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERATOR	90	0.32	48.65
MACHINE FORM OPERATORS, METAL AND PLASTICS	30	0.11	20.00
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS,	70	0.25	28.62
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	40	0.14	17.13
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	50	0.18	16.12
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	10	0.03	18.63
ELECTRONIC SEMICONDUCTOR PROCESSORS	120	0.42	43.31
CHEMICAL EQUIPMENT TENDERS	10	0.03	24.99

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEASURING AND CONTROLLING DEVICES
SIC - 382
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	10	0.03	10.87
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	160	0.56	39.67
ALL OTHER MACHINE SETTERS	200	0.70	56.46
ALL OTHER MACHINE OPERATORS	210	0.74	45.30
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	1430	5.03	19.93
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	1260	4.44	18.56
WATCH, CLOCK AND CHRONOMETER ASSEMBLERS, ADJUSTERS AND	50	0.18	17.92
ALL OTHER PRECISION METAL ASSEMBLERS	90	0.32	31.61
ELECTRICAL AND ELECTRONIC ASSEMBLERS	420	1.48	36.19
SOLDERERS AND BRAZERS	80	0.28	44.97
GRINDING AND POLISHING WORKERS, HAND	10	0.03	45.17
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	690	2.43	26.20
ALL OTHER HAND WORKERS	410	1.44	51.32
PLANT AND SYSTEMS OCCUPATIONS	10	0.03	10.10
TRUCK DRIVERS, HEAVY	10	0.03	24.74
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.03	9.99
ALL OTHER TRANSPORTATION WORKERS	**	N/A	N/A
MECHANIC AND REPAIRER HELPERS	10	0.03	45.06
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	160	0.56	24.83
HAND PACKERS AND PACKAGERS	80	0.28	33.85
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.03	45.17

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEDICAL INSTRUMENTS AND SUPPLIES
SIC - 384
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	13960	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1780	12.75	N/A
FINANCIAL MANAGERS	170	1.22	17.09
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	50	0.36	14.39
PURCHASING MANAGERS	40	0.29	19.15
MARKETING, ADVERTISING AND RELATED MANAGERS	270	1.93	17.59
ADMINISTRATIVE SERVICE MANAGERS	60	0.43	23.27
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	300	2.15	18.01
INDUSTRIAL PRODUCTION MANAGERS	210	1.50	17.32
GENERAL MANAGERS AND TOP EXECUTIVES	330	2.36	14.24
ALL OTHER MANAGERS AND ADMINISTRATORS	350	2.51	20.09
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	3260	23.35	N/A
ACCOUNTANTS AND AUDITORS	90	0.64	13.22
BUDGET ANALYSTS	40	0.29	25.90
ALL OTHER FINANCIAL SPECIALISTS	10	0.07	22.58
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	160	1.15	12.59
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	70	0.50	8.98
ALL OTHER MANAGEMENT SUPPORT WORKERS	60	0.43	22.63
ELECTRICAL AND ELECTRONIC ENGINEERS	280	2.01	19.34
COMPUTER ENGINEERS	50	0.36	21.74
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	120	0.86	11.78
MECHANICAL ENGINEERS	290	2.08	21.35
ALL OTHER ENGINEERS	400	2.87	49.21
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECH	270	1.93	17.35
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.07	20.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	150	1.07	27.50
DRAFTERS	140	1.00	18.52
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	30	0.22	27.48
CHEMISTS, EXCEPT BIOCHEMISTS	150	1.07	47.98
LIFE SCIENTISTS	140	1.00	30.67
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	210	1.50	36.22
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	120	0.86	18.01
COMPUTER PROGRAMMERS	50	0.36	26.66
ALL OTHER COMPUTER SCIENTISTS	70	0.50	40.38
OPERATIONS AND SYSTEMS RESEARCHERS	20	0.14	19.24
ALL OTHER HEALTH PROFESSIONALS, AND OTHERS	10	0.07	15.71
TECHNICAL WRITERS	40	0.29	25.06

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEDICAL INSTRUMENTS AND SUPPLIES
SIC - 384
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
DESIGNERS, EXCEPT INTERIOR DESIGNERS	30	0.22	17.39
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	250	1.79	59.45
SALES AND RELATED OCCUPATIONS	860	6.16	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	70	0.50	24.02
SALES ENGINEERS	10	0.07	30.76
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	620	4.44	29.15
ALL OTHER SALES AND RELATED WORKERS	160	1.15	46.56
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2130	15.27	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	140	1.00	34.17
ADJUSTMENT CLERKS	110	0.79	17.86
SECRETARIES	430	3.08	10.55
RECEPTIONISTS AND INFORMATION CLERKS	30	0.22	14.32
TYPISTS	30	0.22	34.80
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	20	0.14	17.81
FILE CLERKS	10	0.07	26.35
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	100	0.72	19.55
PROCUREMENT CLERKS	20	0.14	20.75
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	200	1.43	11.22
PAYROLL AND TIMEKEEPING CLERKS	20	0.14	14.28
BILLING, COST AND RATE CLERKS	40	0.29	32.86
GENERAL OFFICE CLERK	90	0.64	27.58
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	30	0.22	11.39
DATA ENTRY KEYERS, EXCEPT COMPOSING	40	0.29	16.43
ALL OTHER OFFICE MACHINE OPERATORS	**	N/A	N/A
SWITCHBOARD OPERATOR	30	0.22	40.59
PRODUCTION, PLANNING, EXPEDITING CLERKS	180	1.29	16.49
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	190	1.36	25.44
TRAFFIC, SHIPPING AND RECEIVING CLERKS	180	1.29	19.53
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	240	1.72	44.39
SERVICE OCCUPATIONS	210	1.51	N/A
FIRST LINE SUPERVISORS - SERVICE	40	0.29	25.15
GUARDS AND WATCH GUARDS	40	0.29	37.86
FOOD AND BEVERAGE PREPARATION AND SERVICE WORKERS	10	0.07	30.61
JANITORS AND CLEANERS	80	0.57	21.33
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.07	30.61

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MEDICAL INSTRUMENTS AND SUPPLIES
SIC - 384
REFERENCE DATE APRIL, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER SERVICE WORKERS	30	0.22	39.61
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	5720	40.96	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	60	0.43	18.80
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	410	2.94	11.02
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	20	0.14	24.21
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	40	0.29	22.67
ALL OTHER PRODUCTION WORKER SUPERVISORS	40	0.29	21.06
PRECISION INSPECTORS, TESTERS, AND GRADERS	120	0.86	28.65
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	370	2.65	20.79
MACHINERY MAINTENANCE MECHANICS	30	0.22	20.82
MAINTENANCE REPAIRERS, GENERAL UTILITY	80	0.57	30.87
PRECISION INSTRUMENT REPAIRERS	90	0.64	30.56
CARPENTERS	20	0.14	32.21
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.07	28.57
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	40	0.29	48.30
MACHINISTS	320	2.29	22.02
ALL OTHER PRECISION METAL WORKERS	80	0.57	44.95
PRECISION OPTICAL GOODS WORKERS	70	0.50	34.06
MEDICAL APPLIANCE MAKERS	270	1.93	42.87
ALL OTHER PRECISION WORKERS	10	0.07	78.24
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	20	0.14	38.64
PACKAGING AND FILLING MACHINE OPERATORS	110	0.79	46.27
ALL OTHER MACHINE SETTERS	300	2.15	73.96
ALL OTHER MACHINE OPERATORS	160	1.15	118.86
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	270	1.93	33.71
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	490	3.51	29.78
ALL OTHER PRECISION METAL ASSEMBLERS	300	2.15	46.58
MACHINE ASSEMBLERS	60	0.43	23.17
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	1190	8.52	20.51
ALL OTHER HAND WORKERS	230	1.65	59.78
ALL OTHER TRANSPORTATION WORKERS	10	0.07	53.28
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	10	0.07	79.49
MECHANIC AND REPAIRER HELPERS	10	0.07	33.07
MACHINE FEEDERS AND OFFBEARERS	30	0.22	48.98
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	90	0.64	9.57
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	360	2.58	66.13

1 SUMMED PARTS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.
** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS MANUFACTURING INDUSTRIES (SIC 39)

Industry Description

This major group includes establishments primarily engaged in manufacturing products not classified in any other manufacturing major group. Industries in this group fall into the following categories: jewelry, silverware, and plated ware; musical instruments; dolls, toys, games, and sporting and athletic goods; pens, pencils, and artists' materials; buttons, costumes novelties, miscellaneous notions; brooms and brushes; caskets; and other miscellaneous manufacturing industries.

Employment Trends

This industry group declined by 900 jobs or 4.7 percent between 1986 and 1989. This compares with a 9 percent decline in durable goods as a whole.

Occupational Structure

Slightly over 65 percent of the occupations within this industry are concentrated within the production and maintenance category. Nine of the eleven top ranked occupations with 5,800 workers or 32 percent of this industry's workforce are in the production and maintenance category.

TOP TEN OCCUPATIONS

Occupation	Jobs
Assemblers and Fabricators- Except Machine, Electrical	1,980
All Other machine Operators	770
Hand Packer and Packagers	630
General Managers and Top Executives	550
First Line Supervisors-Production and Related	490
Production Inspectors,Testers,Graders,Sorters,Samplers	460
Secretaries	400
Machine Form Operators, Metal and Plastics	400
Precision Hand Workers, Jewelry	370
Plastic Molding & Casting Machine Operators & Tenders	350
Freight, Stock and Material Handlers, Hand	350

MISCELLANEOUS MANUFACTURING INDUSTRIES
SIC - 39
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	18160	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	1380	7.60	N/A
FINANCIAL MANAGERS	110	0.61	14.37
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	50	0.27	7.22
PURCHASING MANAGERS	50	0.27	9.67
MARKETING, ADVERTISING AND RELATED MANAGERS	150	0.83	7.12
ADMINISTRATIVE SERVICE MANAGERS	20	0.11	15.87
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	100	0.55	5.20
INDUSTRIAL PRODUCTION MANAGERS	210	1.16	22.23
GENERAL MANAGERS AND TOP EXECUTIVES	550	3.03	13.79
ALL OTHER MANAGERS AND ADMINISTRATORS	140	0.77	25.63
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	960	5.23	N/A
ACCOUNTANTS AND AUDITORS	90	0.50	7.12
BUDGET ANALYSTS	20	0.11	5.00
ALL OTHER FINANCIAL SPECIALISTS	50	0.27	8.53
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	80	0.44	19.84
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	30	0.16	9.53
COST ESTIMATORS	50	0.27	11.72
ALL OTHER MANAGEMENT SUPPORT WORKERS	50	0.27	24.91
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	50	0.27	0.00
MECHANICAL ENGINEERS	90	0.50	8.04
ALL OTHER ENGINEERS	10	0.05	0.00
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.05	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.05	0.00
DRAFTERS	50	0.27	13.25
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	20	0.11	0.00
PHYSICAL SCIENTISTS	10	0.05	0.00
PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECHNOLOGISTS	10	0.05	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	60	0.33	13.51
COMPUTER PROGRAMMERS	40	0.22	9.99
COMPUTER PROGRAMMER AIDES	10	0.05	0.00
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	20	0.11	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	170	0.94	22.30
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	30	0.16	5.24
SALES AND RELATED OCCUPATIONS	840	4.63	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS MANUFACTURING INDUSTRIES
SIC - 39
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	120	0.66	12.98
SALES ENGINEERS	10	0.05	0.00
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	170	0.94	13.25
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	290	1.60	19.03
ALL OTHER SALES AND RELATED WORKERS	250	1.38	31.69
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	2850	15.67	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	150	0.83	14.58
ADJUSTMENT CLERKS	120	0.66	7.96
SECRETARIES	400	2.20	14.62
RECEPTIONISTS AND INFORMATION CLERKS	40	0.22	9.57
TYPISTS	30	0.16	29.21
TYPISTS, WORD PROCESSING EQUIPMENT	20	0.11	37.17
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	30	0.16	8.62
FILE CLERKS	40	0.22	15.92
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	250	1.38	20.19
PROCUREMENT CLERKS	30	0.16	3.44
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	290	1.60	19.75
PAYROLL AND TIMEKEEPING CLERKS	80	0.44	6.73
BILLING, COST AND RATE CLERKS	60	0.33	3.83
GENERAL OFFICE CLERK	190	1.05	20.79
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	20	0.11	16.96
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	90	0.50	5.48
DATA ENTRY KEYERS, EXCEPT COMPOSING	80	0.44	8.10
ALL OTHER OFFICE MACHINE OPERATORS	10	0.05	0.00
SWITCHBOARD OPERATOR	30	0.16	4.71
PRODUCTION, PLANNING, EXPEDITING CLERKS	270	1.49	7.85
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	30	0.16	21.26
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	140	0.77	23.57
TRAFFIC, SHIPPING AND RECEIVING CLERKS	320	1.76	20.29
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	80	0.44	7.41
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	50	0.27	22.86
SERVICE OCCUPATIONS	270	1.48	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.11	9.11
GUARDS AND WATCH GUARDS	100	0.55	3.09
JANITORS AND CLEANERS	140	0.77	5.52
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.05	26.65

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N/A NOT AVAILABLE.

MISCELLANEOUS MANUFACTURING INDUSTRIES
SIC - 39
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	11860	65.39	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	30	0.16	19.29
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	490	2.70	12.36
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	30	0.16	7.14
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	60	0.33	16.83
ALL OTHER PRODUCTION WORKER SUPERVISORS	30	0.16	31.27
PRECISION INSPECTORS, TESTERS, AND GRADERS	90	0.50	16.82
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	460	2.53	11.08
MACHINERY MAINTENANCE MECHANICS	130	0.72	0.79
MACHINERY MAINTENANCE WORKERS	30	0.16	24.97
MAINTENANCE REPAIRERS, GENERAL UTILITY	160	0.88	16.06
CARPENTERS	70	0.38	48.75
ELECTRICIANS	40	0.22	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	20	0.11	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	20	0.11	34.27
TOOL AND DIE MAKERS	240	1.32	13.24
MACHINISTS	200	1.10	45.47
JEWELERS AND SILVERSMITHS	200	1.10	23.65
PRECISION HAND WORKERS, JEWELRY	370	2.04	26.68
PRECISION ETCHERS AND ENGRAVERS, HAND OR MACHINE	140	0.77	35.04
SHEET METAL WORKERS	140	0.77	46.45
ALL OTHER PRECISION METAL WORKERS	250	1.38	15.91
PATTERN AND MODEL MAKERS, WOOD	10	0.06	44.72
WOOD MACHINISTS	10	0.06	43.88
CABINETMAKERS AND BENCH CARPENTERS	80	0.44	37.75
PRECISION MOLDERS, SHAPERS, CASTERS AND CARVERS, EXCEPT	100	0.55	29.48
PRECISION PATTERNMAKERS, MODEL MAKERS, LAYOUT WORKERS	110	0.61	49.58
GEM AND DIAMOND WORKERS	40	0.22	25.51
ALL OTHER PRECISION WORKERS	210	1.16	68.54
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	50	0.28	3.61
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	60	0.33	0.00
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	70	0.39	21.88
MACHINE TOOL CUTTING OPERATORS	270	1.49	33.68
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	140	0.77	13.86
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	40	0.22	20.22
MACHINE FORM OPERATORS, METAL AND PLASTICS	400	2.20	21.19
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	20	0.11	18.23
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	170	0.94	19.89
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	350	1.93	8.41
METAL MOLDING, COREMAKING AND CASTING MACHINE SETTERS	20	0.11	0.00

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N/A NOT AVAILABLE.

MISCELLANEOUS MANUFACTURING INDUSTRIES
SIC - 39
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	130	0.72	12.72
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	40	0.22	41.42
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	20	0.11	10.64
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	20	0.11	29.99
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	60	0.33	16.74
WOODWORKING MACHINE SETTERS AND SET-UP OPERATORS	20	0.11	0.00
PRINTING PRESS MACHINE SETTERS AND SET-UP OPERATORS	60	0.33	4.81
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	50	0.28	17.12
PRINTING PRESS MACHINE OPERATORS	70	0.39	0.00
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATOR	10	0.06	31.62
SEWING MACHINE OPERATORS, GARMENT	40	0.22	28.57
SEWING MACHINE OPERATORS, NON-GARMENT	20	0.11	38.67
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	40	0.22	6.90
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	20	0.11	41.83
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	40	0.22	17.94
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	40	0.22	14.42
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	70	0.39	2.78
PACKAGING AND FILLING MACHINE OPERATORS	120	0.66	18.26
ALL OTHER MACHINE SETTERS	70	0.39	10.01
ALL OTHER MACHINE OPERATORS	770	4.24	10.95
ELECTRICAL AND ELECTRONIC ASSEMBLERS	120	0.66	0.85
WELDERS AND CUTTERS	30	0.17	33.20
SOLDERERS AND BRAZERS	150	0.83	31.82
CUTTERS AND TRIMMERS, HAND	50	0.28	9.22
MOLDERS AND CASTERS, HAND	120	0.66	24.55
PAINTING, COATING AND DECORATING WORKERS - HAND	210	1.16	30.99
HAND ENGRAVING AND PRINTING WORKERS	30	0.17	25.50
GRINDING AND POLISHING WORKERS, HAND	270	1.49	21.18
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	1980	10.90	18.38
ALL OTHER HAND WORKERS	220	1.21	61.22
PLANT AND SYSTEMS OCCUPATIONS	10	0.06	0.00
TRUCK DRIVERS, HEAVY	30	0.17	39.54
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	40	0.22	27.97
ALL OTHER TRANSPORTATION WORKERS	10	0.06	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	90	0.50	1.52
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	70	0.39	0.00
MECHANIC AND REPAIRER HELPERS	10	0.06	18.63
MACHINE FEEDERS AND OFFBEARERS	80	0.44	21.23
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	350	1.93	9.13
HAND PACKERS AND PACKAGERS	630	3.47	20.24
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	300	1.65	19.99

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

JEWELRY, SILVERWARE AND PLATED WARE
SIC - 391
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6980	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	490	7.04	N/A
FINANCIAL MANAGERS	50	0.72	9.80
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.29	0.00
PURCHASING MANAGERS	20	0.29	0.00
MARKETING, ADVERTISING AND RELATED MANAGERS	80	1.15	4.38
ADMINISTRATIVE SERVICE MANAGERS	10	0.14	28.86
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	20	0.29	8.33
INDUSTRIAL PRODUCTION MANAGERS	70	1.00	12.39
GENERAL MANAGERS AND TOP EXECUTIVES	170	2.44	9.79
ALL OTHER MANAGERS AND ADMINISTRATORS	50	0.72	25.65
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	330	4.72	N/A
ACCOUNTANTS AND AUDITORS	30	0.43	7.20
BUDGET ANALYSTS	10	0.14	0.00
ALL OTHER FINANCIAL SPECIALISTS	**	N/A	N/A
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	30	0.43	16.76
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	20	0.29	8.66
COST ESTIMATORS	40	0.57	14.36
ALL OTHER MANAGEMENT SUPPORT WORKERS	30	0.43	32.16
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	20	0.29	0.00
MECHANICAL ENGINEERS	10	0.14	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	30	0.43	7.71
COMPUTER PROGRAMMERS	20	0.29	9.99
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.14	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	70	1.00	10.32
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.14	0.00
SALES AND RELATED OCCUPATIONS	380	5.45	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	60	0.86	9.91
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	60	0.86	9.95
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	150	2.15	8.36
ALL OTHER SALES AND RELATED WORKERS	110	1.58	14.67
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	1310	18.77	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	80	1.15	14.65

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N/A NOT AVAILABLE.

JEWELRY, SILVERWARE AND PLATED WARE
SIC - 391
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ADJUSTMENT CLERKS	70	1.00	8.65
SECRETARIES	140	2.01	8.73
RECEPTIONISTS AND INFORMATION CLERKS	10	0.14	0.00
TYPISTS	20	0.29	30.61
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.14	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.14	7.14
FILE CLERKS	30	0.43	0.00
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	120	1.72	5.91
PROCUREMENT CLERKS	20	0.29	6.24
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	90	1.29	10.77
PAYROLL AND TIMEKEEPING CLERKS	30	0.43	9.37
BILLING, COST AND RATE CLERKS	40	0.57	0.00
GENERAL OFFICE CLERK	60	0.86	13.01
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	30	0.43	7.78
DATA ENTRY KEYERS, EXCEPT COMPOSING	70	1.00	8.89
ALL OTHER OFFICE MACHINE OPERATORS	10	0.14	24.74
SWITCHBOARD OPERATOR	20	0.29	7.44
PRODUCTION, PLANNING, EXPEDITING CLERKS	150	2.15	4.57
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.14	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	80	1.15	11.07
TRAFFIC, SHIPPING AND RECEIVING CLERKS	120	1.72	11.30
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	60	0.86	7.49
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	30	0.43	36.44
SERVICE OCCUPATIONS	160	2.30	N/A
FIRST LINE SUPERVISORS - SERVICE	20	0.29	10.82
GUARDS AND WATCH GUARDS	60	0.86	4.83
JANITORS AND CLEANERS	70	1.00	6.06
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.15	28.86
ALL OTHER SERVICE WORKERS	**	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4310	61.72	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	20	0.29	36.43
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	220	3.15	9.77
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.14	0.00
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.14	0.00
ALL OTHER PRODUCTION WORKER SUPERVISORS	**	N/A	N/A
PRECISION INSPECTORS, TESTERS, AND GRADERS	70	1.00	17.36
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	190	2.72	10.23

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

JEWELRY, SILVERWARE AND PLATED WARE
SIC - 391
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
MACHINERY MAINTENANCE MECHANICS	10	0.14	8.33
MACHINERY MAINTENANCE WORKERS	10	0.14	9.99
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	0.86	24.68
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	**	N/A	N/A
CARPENTERS	10	0.14	0.00
ELECTRICIANS	10	0.14	0.00
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	10	0.14	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
TOOL AND DIE MAKERS	170	2.44	12.22
MACHINISTS	40	0.57	6.81
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	10	0.14	15.74
JEWELERS AND SILVERSMITHS	210	3.01	23.65
PRECISION HAND WORKERS, JEWELRY	310	4.44	15.50
PRECISION ETCHERS AND ENGRAVERS, HAND OR MACHINE	100	1.43	15.06
ALL OTHER PRECISION METAL WORKERS	200	2.87	0.85
ALL OTHER PRECISION PRINTING WORKERS	**	N/A	N/A
PRECISION MOLDERS, SHAPERS, CASTERS AND CARVERS, EXCEPT	10	0.14	21.65
PRECISION DETAIL DESIGN DECORATORS AND PAINTERS	10	0.14	18.18
GEM AND DIAMOND WORKERS	40	0.57	25.51
ALL OTHER PRECISION WORKERS	10	0.14	47.14
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	60	0.86	21.83
MACHINE TOOL CUTTING OPERATORS	180	2.58	10.03
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	70	1.00	18.13
ROLLING MACHINE SETTERS AND SET-UP OPERATORS, METAL AND	20	0.29	44.01
MACHINE FORM OPERATORS, METAL AND PLASTICS	130	1.86	9.13
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS,	20	0.29	20.37
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	10	0.14	24.84
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	30	0.43	26.95
METAL MOLDING, COREMAKING AND CASTING MACHINE SETTERS A	10	0.15	0.00
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	70	1.00	22.69
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS AND SE	30	0.43	10.71
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS AND	20	0.29	10.64
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	10	0.14	42.49
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	10	0.14	22.04
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	20	0.29	7.87
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS AND	30	0.43	12.43
ALL OTHER MACHINE SETTERS	10	0.14	48.98
ALL OTHER MACHINE OPERATORS	520	7.45	7.45
WELDERS AND CUTTERS	10	0.14	22.22
SOLDERERS AND BRAZERS	140	2.01	26.32
CUTTERS AND TRIMMERS, HAND	20	0.29	14.88

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N/A NOT AVAILABLE.

JEWELRY, SILVERWARE AND PLATED WARE
SIC - 391
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PAINTING, COATING AND DECORATING WORKERS - HAND	50	0.72	44.10
HAND ENGRAVING AND PRINTING WORKERS	30	0.43	28.56
GRINDING AND POLISHING WORKERS, HAND	240	3.44	7.48
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	300	4.30	20.16
ALL OTHER HAND WORKERS	160	2.29	61.32
PLANT AND SYSTEMS OCCUPATIONS	10	0.15	0.00
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.14	0.00
MECHANIC AND REPAIRER HELPERS	10	0.14	22.36
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	60	0.86	14.46
HAND PACKERS AND PACKAGERS	250	3.58	10.15
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	30	0.43	31.33

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TOYS AND SPORTING GOODS
SIC - 394
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	6130	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	430	7.04	N/A
FINANCIAL MANAGERS	30	0.49	7.21
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	20	0.33	4.76
PURCHASING MANAGERS	20	0.33	12.24
MARKETING, ADVERTISING AND RELATED MANAGERS	50	0.82	7.67
ADMINISTRATIVE SERVICE MANAGERS	20	0.33	0.00
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	70	1.14	4.47
INDUSTRIAL PRODUCTION MANAGERS	60	0.98	18.08
GENERAL MANAGERS AND TOP EXECUTIVES	140	2.29	10.74
ALL OTHER MANAGERS AND ADMINISTRATORS	20	0.33	5.26
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	430	6.99	N/A
ACCOUNTANTS AND AUDITORS	50	0.82	6.50
BUDGET ANALYSTS	10	0.16	9.99
ALL OTHER FINANCIAL SPECIALISTS	40	0.65	6.44
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.33	0.00
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	10	0.16	0.00
COST ESTIMATORS	10	0.16	0.00
ALL OTHER MANAGEMENT SUPPORT WORKERS	20	0.33	16.49
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	30	0.49	0.00
MECHANICAL ENGINEERS	70	1.14	9.45
ALL OTHER ENGINEERS	10	0.16	0.00
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.16	0.00
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.16	0.00
DRAFTERS	20	0.33	0.00
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	10	0.16	0.00
PHYSICAL SCIENTISTS	10	0.16	0.00
PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECHNOLOGISTS	10	0.16	0.00
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	20	0.33	14.43
COMPUTER PROGRAMMERS	10	0.16	0.00
ALL OTHER COMPUTER SCIENTISTS	**	N/A	N/A
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS AND RE	10	0.16	0.00
DESIGNERS, EXCEPT INTERIOR DESIGNERS	40	0.65	11.96
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	10	0.16	0.00
SALES AND RELATED OCCUPATIONS	240	3.91	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TOYS AND SPORTING GOODS
SIC - 394
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	40	0.65	8.54
SALES ENGINEERS	10	0.16	0.00
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	100	1.63	0.00
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	50	0.82	24.29
ALL OTHER SALES AND RELATED WORKERS	40	0.65	8.10
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	830	13.52	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	40	0.65	3.84
ADJUSTMENT CLERKS	40	0.65	4.33
SECRETARIES	140	2.29	8.54
RECEPTIONISTS AND INFORMATION CLERKS	10	0.16	0.00
TYPISTS	10	0.16	0.00
TYPISTS, WORD PROCESSING EQUIPMENT	10	0.16	0.00
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	10	0.16	0.00
FILE CLERKS	10	0.16	12.49
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	60	0.98	17.93
PROCUREMENT CLERKS	10	0.16	0.00
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	80	1.31	21.87
PAYROLL AND TIMEKEEPING CLERKS	40	0.65	0.00
BILLING, COST AND RATE CLERKS	20	0.33	0.00
GENERAL OFFICE CLERK	50	0.82	5.43
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	10	0.16	0.00
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	40	0.65	6.21
DATA ENTRY KEYERS, EXCEPT COMPOSING	10	0.16	0.00
ALL OTHER OFFICE MACHINE OPERATORS	10	0.16	0.00
SWITCHBOARD OPERATOR	10	0.16	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	70	1.14	0.00
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	10	0.16	0.00
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	30	0.49	0.00
TRAFFIC, SHIPPING AND RECEIVING CLERKS	70	1.14	29.31
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	20	0.33	0.00
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	20	0.33	0.00
SERVICE OCCUPATIONS	80	1.30	N/A
GUARDS AND WATCH GUARDS	30	0.49	0.00
JANITORS AND CLEANERS	40	0.65	2.70
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	10	0.16	0.00
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	4120	67.24	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

TOYS AND SPORTING GOODS
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REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	10	0.16	0.00
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	140	2.29	5.72
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	10	0.16	0.00
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	30	0.49	2.85
ALL OTHER PRODUCTION WORKER SUPERVISORS	10	0.16	0.00
PRECISION INSPECTORS, TESTERS, AND GRADERS	20	0.33	0.00
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	220	3.59	0.00
MACHINERY MAINTENANCE MECHANICS	100	1.63	0.00
MAINTENANCE REPAIRERS, GENERAL UTILITY	60	0.98	4.91
CARPENTERS	30	0.49	0.00
ELECTRICIANS	30	0.49	0.00
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	20	0.33	0.00
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	**	N/A	N/A
TOOL AND DIE MAKERS	20	0.33	0.00
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	10	0.16	0.00
WOOD MACHINISTS	10	0.16	0.00
PRECISION COMPOSITORS AND OTHERS	10	0.16	0.00
PRECISION MOLDERS, SHAPERS, CASTERS AND CARVERS, EXCEPT	40	0.65	0.00
PRECISION PATTERNMAKERS, MODEL MAKERS, LAYOUT WORKERS	10	0.16	12.49
ALL OTHER PRECISION WORKERS	100	1.63	64.52
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	40	0.66	0.00
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	60	0.98	0.00
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	10	0.16	0.00
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	20	0.33	0.00
MACHINE FORM OPERATORS, METAL AND PLASTICS	200	3.26	9.10
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	110	1.80	15.07
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	290	4.73	5.83
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	60	0.98	0.00
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	10	0.16	0.00
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	80	1.31	26.25
WOODWORKING MACHINE SETTERS AND SET-UP OPERATORS	20	0.33	0.00
PRINTING PRESS MACHINE SETTERS AND SET-UP OPERATORS	30	0.49	0.00
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	20	0.33	8.66
PRINTING PRESS MACHINE OPERATORS	50	0.82	0.00
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATOR	**	N/A	N/A
SEWING MACHINE OPERATORS, GARMENT	40	0.65	28.57
CUTTING AND SLICING MACHINE SETTERS AND SET-UP OPERATOR	40	0.65	3.82
CUTTING AND SLICING MACHINE OPERATORS	20	0.33	0.00
COATING, PAINTING AND SPRAYING MACHINE OPERATORS	10	0.16	21.42
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	30	0.49	0.00

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N/A NOT AVAILABLE.

TOYS AND SPORTING GOODS
SIC - 394
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
PACKAGING AND FILLING MACHINE OPERATORS	70	1.14	7.42
ALL OTHER MACHINE SETTERS	60	0.98	0.00
ALL OTHER MACHINE OPERATORS	210	3.43	9.38
ELECTRICAL AND ELECTRONIC ASSEMBLERS	110	1.80	0.00
CUTTERS AND TRIMMERS, HAND	20	0.33	0.00
MOLDERS AND CASTERS, HAND	10	0.16	0.00
PAINTING, COATING AND DECORATING WORKERS - HAND	40	0.65	0.00
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	720	11.75	7.10
TRUCK DRIVERS, HEAVY	10	0.16	0.00
TRUCK DRIVERS, LIGHT - INCLUDING DELIVERY AND ROUTE DRI	10	0.16	0.00
ALL OTHER TRANSPORTATION WORKERS	10	0.16	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	80	1.31	1.83
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	70	1.14	0.00
MACHINE FEEDERS AND OFFBEARERS	70	1.14	19.28
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	240	3.92	5.92
HAND PACKERS AND PACKAGERS	220	3.59	15.76
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	150	2.45	0.00

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS MANUFACTURES
SIC - 399
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	3070	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	230	7.47	N/A
FINANCIAL MANAGERS	10	0.32	34.64
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	10	0.32	47.14
MARKETING, ADVERTISING AND RELATED MANAGERS	10	0.32	34.64
INDUSTRIAL PRODUCTION MANAGERS	40	1.30	18.74
GENERAL MANAGERS AND TOP EXECUTIVES	130	4.23	9.52
ALL OTHER MANAGERS AND ADMINISTRATORS	30	0.98	83.13
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	90	2.92	N/A
ACCOUNTANTS AND AUDITORS	10	0.32	9.99
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	20	0.65	23.32
DRAFTERS	20	0.65	21.21
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	**	N/A	N/A
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	40	1.30	54.02
SALES AND RELATED OCCUPATIONS	170	5.54	N/A
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED PRO	50	1.63	26.99
ALL OTHER SALES AND RELATED WORKERS	120	3.91	57.95
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	320	10.41	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	10	0.32	22.26
SECRETARIES	70	2.28	14.75
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	10	0.32	32.27
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	60	1.95	22.12
PAYROLL AND TIMEKEEPING CLERKS	10	0.32	48.98
BILLING, COST AND RATE CLERKS	10	0.33	40.82
GENERAL OFFICE CLERK	20	0.65	30.33
PRODUCTION, PLANNING, EXPEDITING CLERKS	30	0.98	33.98
TRAFFIC, SHIPPING AND RECEIVING CLERKS	50	1.63	24.33
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	50	1.63	73.78
SERVICE OCCUPATIONS	10	0.33	N/A
JANITORS AND CLEANERS	10	0.33	19.99
ALL OTHER SERVICE WORKERS	**	N/A	N/A

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

MISCELLANEOUS MANUFACTURES
SIC - 399
REFERENCE DATE MAY, 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	2250	73.33	N/A
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	100	3.26	20.65
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	10	0.33	30.61
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPL	40	1.30	49.71
MACHINERY MAINTENANCE MECHANICS	20	0.65	0.00
MACHINERY MAINTENANCE WORKERS	20	0.65	38.29
MAINTENANCE REPAIRERS, GENERAL UTILITY	40	1.30	22.13
TOOL AND DIE MAKERS	10	0.33	34.40
MACHINISTS	30	0.98	24.43
PRECISION HAND WORKERS, JEWELRY	10	0.33	38.18
PRECISION ETCHERS AND ENGRAVERS, HAND OR MACHINE	10	0.33	37.79
SHEET METAL WORKERS	110	3.58	41.56
CABINETMAKERS AND BENCH CARPENTERS	50	1.63	25.68
ALL OTHER PRECISION WORKERS	270	8.79	61.50
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL AN	30	0.98	23.71
MACHINE FORM OPERATORS, METAL AND PLASTICS	20	0.65	28.82
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	50	1.63	29.21
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	30	0.98	12.37
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	30	0.98	24.13
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATOR	10	0.33	48.40
SEWING MACHINE OPERATORS, NON-GARMENT	20	0.65	38.67
ALL OTHER MACHINE SETTERS	10	0.33	83.96
ALL OTHER MACHINE OPERATORS	50	1.63	66.45
CUTTERS AND TRIMMERS, HAND	10	0.33	28.28
PAINTING, COATING AND DECORATING WORKERS - HAND	90	2.93	39.64
GRINDING AND POLISHING WORKERS, HAND	10	0.33	39.52
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	810	26.38	24.19
ALL OTHER HAND WORKERS	100	3.26	65.36
ALL OTHER TRANSPORTATION WORKERS	30	0.98	63.96
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	10	0.33	0.00
MACHINE FEEDERS AND OFFBEARERS	10	0.33	40.40
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	40	1.30	23.39
HAND PACKERS AND PACKAGERS	160	5.21	40.74
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	10	0.33	33.52

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

HIGH TECHNOLOGY MANUFACTURING

Industry Description

High technology manufacturing is comprised of the following two and three digigit industry groups.

SIC CODE	INDUSTRY DESCRIPTION
283	Drugs
348	Ordnance and Accessories
357	Computer and Office Equipment
36	Electronic and Other Electrical Equipment
376	Guided Missiles and Space Vehicles
379	Miscellaneous Transportation Equipment
38	Instruments

Employment Trends

In 1988 total employment for high technology manufacturing stood at 238,600 and represented 40.8 percent of all manufacturing jobs. By 1989, employment had fallen to 229,900 a drop of 3.6 percent, which compares favorably to the 4.0 percent decline that occured in manufacturing as a whole over the same time period.

Occupational Structure

Jobs in the production and maintenance occupational grouping represent 40 percent of this industry's employment. This occupational grouping also accounts for the majority of employment in the top ten ranked occupations. The second largest occupational grouping was Professional, Paraprofessional and Technical occupations which accounted for nearly 30 percent of total high technology manufacturing employment.

TOP TEN OCCUPATIONS

Occupation	Jobs
Electrical and Electronic Engineers	15,310
Machinists	10,720
Electrical and Electronic Equipment Assemblers	10,220
Assemblers and Fabricators-ex. Machine, Electrical	9,510
Electrical and Electronic Assemblers	8,630
Secretaries	8,510
Electrical, Electronic Engineering Technicians	7,450
Engineering, Mathematical, Natural Science Managers	7,040
Industrial Production Managers	6,460
Electromechanical Equipment Assemblers-Precision	6,090

HIGH TECHNOLOGY MANUFACTURING INDUSTRIES
REFERENCE DATE APRIL, MAY, AND JUNE 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OCCUPATIONS	232960	100.00	N/A
MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS	30590	13.13	N/A
FINANCIAL MANAGERS	2880	1.24	15.28
PERSONNEL, TRAINING AND LABOR RELATION MANAGERS	1540	0.66	15.68
PURCHASING MANAGERS	790	0.34	23.55
MARKETING, ADVERTISING AND RELATED MANAGERS	3820	1.64	19.82
ADMINISTRATIVE SERVICE MANAGERS	1010	0.43	25.91
ENGINEERING, MATHEMATICAL AND NATURAL SCIENCE MANAGERS	7040	3.02	21.24
INDUSTRIAL PRODUCTION MANAGERS	6460	2.77	9.75
GENERAL MANAGERS AND TOP EXECUTIVES	4090	1.76	14.12
ALL OTHER MANAGERS AND ADMINISTRATORS	2960	1.27	29.87
PROFESSIONAL, PARAPROFESSIONAL, TECHNICAL OCCUPATIONS	68410	29.35	N/A
ACCOUNTANTS AND AUDITORS	2460	1.06	15.33
BUDGET ANALYSTS	1250	0.54	18.69
ALL OTHER FINANCIAL SPECIALISTS	540	0.23	41.93
PURCHASING AGENTS - EX WHOLESALE, RETAIL & FARM PRODUCT	2070	0.89	15.15
PERSONNEL, TRAINING AND LABOR RELATIONS SPECIALISTS	1640	0.70	9.38
COST ESTIMATORS	360	0.15	35.55
COMPLIANCE OFFICERS, ENFORCEMENT INSPECTORS, EX CONSTR	*	N/A	N/A
ALL OTHER MANAGEMENT SUPPORT WORKERS	3070	1.32	22.21
METALLURGISTS AND METALLURGICAL, CERAMIC AND MATERIALS	100	0.04	21.85
CHEMICAL ENGINEERS	390	0.17	49.46
CIVIL ENGINEERS, INCLUDING TRAFFIC ENGINEERS	20	0.01	0.00
ELECTRICAL AND ELECTRONIC ENGINEERS	15310	6.57	18.46
COMPUTER ENGINEERS	3530	1.52	33.85
INDUSTRIAL ENGINEERS, EXCEPT SAFETY ENGINEERS	3230	1.39	23.29
SAFETY ENGINEERS, EXCEPT MINING	70	0.03	17.42
MECHANICAL ENGINEERS	3620	1.55	16.17
ALL OTHER ENGINEERS	2700	1.16	33.35
CIVIL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	40	0.02	46.68
ELECTRICAL, ELECTRONIC ENGINEERING TECHNICIANS, TECHNOL	7450	3.20	15.74
INDUSTRIAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	630	0.27	71.35
MECHANICAL ENGINEERING TECHNICIANS AND TECHNOLOGISTS	2690	1.16	20.90
DRAFTERS	2450	1.05	21.75
ALL OTHER ENGINEERING TECHNICIANS AND TECHNOLOGISTS	1850	0.79	23.24
PHYSICISTS AND ASTRONOMERS	20	0.01	37.84
CHEMISTS, EXCEPT BIOCHEMISTS	510	0.22	23.68
ALL OTHER PHYSICAL SCIENTISTS	30	0.01	58.40
LIFE SCIENTISTS	170	0.07	29.71

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** EMPLOYMENT LESS THAN 10.
N/A NOT AVAILABLE.

HIGH TECHNOLOGY MANUFACTURING INDUSTRIES
REFERENCE DATE APRIL, MAY, AND JUNE 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
BIOLOGICAL SCIENTISTS	150	0.06	51.68
MEDICAL SCIENTISTS	10	0.00	101.51
BIOLOGICAL, AGRICULTURAL AND FOOD TECHNICIANS AND TECH	80	0.03	24.69
CHEMICAL TECHNICIANS AND TECHNOLOGISTS, EXCEPT HEALTH	820	0.35	39.40
ALL OTHER PHYSICAL AND LIFE SCIENCE TECHNICIANS AND TECH	210	0.09	52.15
SYSTEMS ANALYSTS, ELECTRONIC DATA PROCESSING	3960	1.70	13.54
COMPUTER PROGRAMMERS	1100	0.47	18.61
COMPUTER PROGRAMMER AIDES	190	0.08	38.18
PROGRAMMERS - NUMERICAL, TOOL AND PROCESS CONTROL	110	0.05	49.59
ALL OTHER COMPUTER SCIENTISTS	260	0.11	42.18
OPERATIONS AND SYSTEMS RESEARCHERS	590	0.25	13.16
MATHEMATICAL SCIENTISTS	360	0.15	31.40
LAWYERS	20	0.01	37.79
HEALTH PRACTITIONERS, TECHNOLOGISTS, TECHNICIANS	150	0.06	8.09
REGISTERED NURSES	*	N/A	N/A
OPTICIANS, DISPENSING AND MEASURING	210	0.09	85.34
ALL OTHER HEALTH PROFESSIONALS, AND OTHERS	120	0.05	15.20
WRITERS AND EDITORS	330	0.14	27.44
TECHNICAL WRITERS	830	0.36	29.26
DESIGNERS, EXCEPT INTERIOR DESIGNERS	740	0.32	34.66
ALL OTHER PROFESSIONAL, PARAPROFESSIONAL, AND TECHNICAL	1970	0.85	88.90
SALES AND RELATED OCCUPATIONS	7490	3.21	N/A
FIRST LINE SUPERVISORS AND MANAGER/SUPERVISORS - SALES	1050	0.45	30.20
SALES ENGINEERS	1290	0.55	40.27
SALES REPRESENTATIVES, SCIENTIFIC AND RELATED PRODUCTS	3290	1.41	29.03
SALES REPRESENTATIVES, EXCEPT SCIENTIFIC AND RELATED	630	0.27	62.88
ALL OTHER SALES AND RELATED WORKERS	1230	0.53	35.28
CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS	30370	13.03	N/A
FIRST LINE SUPERVISORS - CLERICAL AND ADMINISTRATIVE	1580	0.68	20.35
ADJUSTMENT CLERKS	800	0.34	25.48
SECRETARIES	8510	3.65	8.06
STENOGRAPHERS	30	0.01	16.64
RECEPTIONISTS AND INFORMATION CLERKS	390	0.17	25.84
TYPISTS	360	0.15	33.32
TYPISTS, WORD PROCESSING EQUIPMENT	260	0.11	36.62
PERSONNEL CLERKS, EXCEPT PAYROLL AND TIMEKEEPING	330	0.14	19.25
FILE CLERKS	180	0.08	33.89
ORDER CLERKS - MATERIALS, MERCHANDISE AND SERVICE	850	0.37	32.06
PROCUREMENT CLERKS	370	0.16	28.28
STATISTICAL CLERKS	50	0.02	24.02

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HIGH TECHNOLOGY MANUFACTURING INDUSTRIES
REFERENCE DATE APRIL, MAY, AND JUNE 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
BOOKKEEPING, ACCOUNTING, AUDITING CLERKS	2550	1.10	16.69
PAYROLL AND TIMEKEEPING CLERKS	410	0.18	19.96
BILLING, COST AND RATE CLERKS	320	0.14	28.91
GENERAL OFFICE CLERK	1910	0.82	27.78
BILLING, POSTING AND CALCULATING MACHINE OPERATORS	10	0.00	62.92
COMPUTER OPERATORS, EXCEPT PERIPHERAL EQUIPMENT	1030	0.44	12.23
PERIPHERAL EDP EQUIPMENT OPERATORS	70	0.03	29.36
DATA ENTRY KEYERS, EXCEPT COMPOSING	590	0.25	19.66
ALL OTHER OFFICE MACHINE OPERATORS	300	0.13	139.72
SWITCHBOARD OPERATOR	520	0.22	20.47
MAIL CLERKS, EXCEPT MACHINE OPERATORS AND POST OFFICE	10	0.00	0.00
PRODUCTION, PLANNING, EXPEDITING CLERKS	3140	1.35	19.73
WEIGHERS, MEASURERS, CHECKERS AND SAMPLERS - RECORDKEEP	30	0.01	35.34
STOCK CLERKS - STOCKROOM, WAREHOUSE AND STORAGE YARD	1950	0.84	25.05
TRAFFIC, SHIPPING AND RECEIVING CLERKS	2700	1.16	13.80
ALL OTHER MATERIAL RECORDING AND RELATED WORKERS	290	0.12	53.19
ALL OTHER CLERICAL AND ADMINISTRATIVE SUPPORT WORKERS	830	0.36	32.62
SERVICE OCCUPATIONS	2880	1.24	N/A
FIRST LINE SUPERVISORS - SERVICE	460	0.20	29.51
GUARDS AND WATCH GUARDS	850	0.37	15.48
FOOD AND BEVERAGE PREPARATION AND SERVICE WORKERS	50	0.02	53.39
JANITORS AND CLEANERS	1380	0.59	22.73
ALL OTHER CLEANING AND BUILDING SERVICE WORKERS	70	0.03	54.30
ALL OTHER SERVICE WORKERS	70	0.03	23.95
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	10	0.00	N/A
AGRICULTURAL, FORESTRY, FISHING AND RELATED OCCUPATIONS	10	0.00	0.00
FIRST LINE SUPERVISORS - AGRICULTURAL, FORESTRY, FISHING	*	N/A	N/A
ANIMAL CARETAKERS, EXCEPT FARM	*	N/A	N/A
PRODUCTION, CONSTRUCTION, MAINTENANCE AND RELATED	93210	40.04	N/A
FIRST LINE SUPERVISORS - MECHANICS AND REPAIRERS	540	0.23	22.35
FIRST LINE SUPERVISORS - CONSTRUCTION AND RELATED	10	0.00	29.39
FIRST LINE SUPERVISORS - PRODUCTION AND RELATED	5230	2.25	9.52
FIRST LINE SUPERVISORS - TRANSPORTATION AND RELATED	420	0.18	11.17
FIRST LINE SUPERVISORS - HELPERS, AND OTHERS	180	0.08	41.26
ALL OTHER PRODUCTION WORKER SUPERVISORS	470	0.20	31.51
PRECISION INSPECTORS, TESTERS, AND GRADERS	5560	2.39	21.58
PRODUCTION INSPECTORS, TESTERS, GRADERS, SORTERS, SAMPLE	3390	1.46	33.54
MACHINERY MAINTENANCE MECHANICS	1050	0.45	28.75

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HIGH TECHNOLOGY MANUFACTURING INDUSTRIES
REFERENCE DATE APRIL, MAY, AND JUNE 1989

OCCUPATIONAL TITLE	EMPLOYMENT		
	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
ALL OTHER MACHINERY MAINTENANCE MECHANICS	40	0.02	40.20
MILLWRIGHTS	90	0.04	30.08
MACHINERY MAINTENANCE WORKERS	130	0.06	28.79
MAINTENANCE REPAIRERS, GENERAL UTILITY	1070	0.46	19.92
AUTOMOTIVE MECHANICS	10	0.00	0.00
BUS AND TRUCK MECHANICS AND DIESEL MECHANICS	10	0.00	0.00
DATA PROCESSING EQUIPMENT REPAIRERS	40	0.02	64.35
ELECTRONIC HOME ENTERTAINMENT EQUIPMENT REPAIRERS	10	0.00	72.89
ELECTRIC MOTOR, TRANSFORMER AND RELATED REPAIRERS	*	N/A	N/A
ELECTRONICS REPAIRERS, INDUSTRIAL EQUIPMENT	160	0.07	45.84
HEATING, AIR CONDITIONING AND REFRIGERATION MECHANICS	120	0.05	10.20
PRECISION INSTRUMENT REPAIRERS	1140	0.49	67.63
ALL OTHER MECHANICS, INSTALLERS AND REPAIRERS	70	0.03	22.62
CARPENTERS	250	0.11	22.12
ELECTRICIANS	570	0.24	14.48
PAINTERS, PAPERHANGERS, CONSTRUCTION AND MAINTENANCE	110	0.05	26.38
PLUMBERS, PIPEFITTERS AND STEAMFITTERS	200	0.09	6.03
ALL OTHER CONSTRUCTION AND EXTRACTIVE OCCUPATIONS	40	0.02	21.64
TOOL AND DIE MAKERS	570	0.24	41.68
PRECISION INSTRUMENT MAKERS	490	0.21	33.46
MACHINISTS	10720	4.60	6.57
PRECISION TOOL GRINDERS, FILERS, SHARPENERS AND OTHER	170	0.07	42.20
PRECISION LAYOUT WORKERS, METAL	10	0.00	60.39
SHEET METAL WORKERS	390	0.17	37.66
BOILERMAKERS	60	0.03	0.00
ALL OTHER PRECISION METAL WORKERS	280	0.12	55.61
PATTERN AND MODEL MAKERS, WOOD	30	0.01	56.42
ALL OTHER PRECISION WOODWORKERS	*	N/A	N/A
PRECISION OPTICAL GOODS WORKERS	540	0.23	47.10
MEDICAL APPLIANCE MAKERS	270	0.12	42.87
ALL OTHER PRECISION WORKERS	100	0.04	46.69
SAWING MACHINE TOOL SETTERS AND SET-UP OPERATORS, METAL	40	0.02	31.76
LATHE AND TURNING MACHINE TOOL SETTERS AND SET-UP OPERA	520	0.22	32.57
DRILLING AND BORING MACHINE TOOL SETTERS AND SET-UP OPER	290	0.12	51.82
MILLING AND PLANING MACHINE SETTERS AND SET-UP OPERATORS	230	0.10	72.89
GRINDING, LAPPING AND BUFFING MACHINE TOOL SETTERS AND	160	0.07	50.78
MACHINE TOOL CUTTING OPERATORS	760	0.33	66.72
PUNCHING MACHINE SETTERS AND SET-UP OPERATORS, METAL	340	0.15	18.22
PRESS AND PRESS BRAKE MACHINE SETTERS AND SET-UP OPERAT	300	0.13	42.06
SHEAR AND SLITTER MACHINE SETTERS AND SET-UP OPERATORS	180	0.08	34.85
FORGING MACHINE SETTERS AND SET-UP OPERATORS, METAL	50	0.02	1.92
MACHINE FORM OPERATORS, METAL AND PLASTICS	410	0.18	29.44
NUMERICAL CONTROL MACHINE TOOL OPERATORS AND TENDERS	990	0.43	22.08
COMBINATION MACHINE TOOL SETTERS AND SET-UP OPERATORS	150	0.06	60.40

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	NUMBER	1 PERCENT OF TOTAL	RELATIVE ERROR %
COMBINATION MACHINE TOOL OPERATORS, METAL AND PLASTICS	1000	0.43	13.15
WELDING MACHINE SETTERS AND SET-UP OPERATORS	110	0.05	35.72
WELDING MACHINE OPERATORS AND TENDERS	80	0.03	48.67
SOLDERING AND BRAZING MACHINE SETTERS AND SET-UP OPERAT	50	0.02	34.27
SOLDERING AND BRAZING MACHINE OPERATORS AND TENDERS	310	0.13	81.05
PLASTIC MOLDING AND CASTING MACHINE SETTERS AND SET-UP	100	0.04	24.70
PLASTIC MOLDING AND CASTING MACHINE OPERATORS AND TENDER	70	0.03	5.00
METAL MOLDING, COREMAKING AND CASTING MACHINE SETTERS	100	0.04	62.36
METAL MOLDING, COREMAKING AND CASTING MACHINE OPERATORS	80	0.03	87.65
ELECTROLYTIC PLATING AND COATING MACHINE SETTERS	300	0.13	53.77
ELECTROLYTIC PLATING AND COATING MACHINE OPERATORS	270	0.12	62.68
NONELECTROLYTIC PLATING AND COATING MACHINE SETTERS	*	N/A	N/A
HEATING EQUIPMENT SETTERS AND SET-UP OPERATORS, METAL	*	N/A	N/A
HEAT TREATING, ANNEALING AND TEMPERING MACHINE OPERATOR	580	0.25	0.82
FURNACE OPERATORS AND TENDERS	60	0.03	8.08
ALL OTHER METAL AND PLASTIC MACHINE SETTERS AND SET-UP	570	0.25	51.05
ALL OTHER METAL AND PLASTIC MACHINE OPERATORS AND TENDER	220	0.09	60.83
PRINTING PRESS MACHINE SETTERS AND SET-UP OPERATORS	30	0.01	60.71
SCREEN PRINTING MACHINE SETTERS AND SET-UP OPERATORS	120	0.05	76.49
ALL OTHER PRINTING RELATED SETTERS AND SET-UP OPERATORS	90	0.04	68.90
PRINTING PRESS MACHINE OPERATORS	10	0.00	0.00
ALL OTHER PRINTING, BINDING AND RELATED MACHINE OPERATO	10	0.00	119.16
SEWING MACHINE OPERATORS, NON-GARMENT	50	0.02	189.84
ELECTRONIC SEMICONDUCTOR PROCESSORS	1490	0.64	46.13
FURNACE, KILN, OVEN, DRIER OR KETTLE OPERATORS AND TEND	*	N/A	N/A
CHEMICAL EQUIPMENT CONTROLLERS AND OPERATORS	130	0.06	126.04
CHEMICAL EQUIPMENT TENDERS	40	0.02	45.83
COATING, PAINTING AND SPRAYING MACHINE SETTERS, SET-UP	230	0.10	40.86
COATING, PAINTING AND SPRAYING MACHINE OPERATORS,TENDERS	330	0.14	46.23
CLEANING, WASHING AND PICKLING EQUIPMENT OPERATORS	130	0.06	42.22
CRUSHING, GRINDING, MIXING AND BLENDING MACHINE OPERATOR	400	0.17	33.15
PACKAGING AND FILLING MACHINE OPERATORS	300	0.13	71.07
ALL OTHER MACHINE SETTERS	270	0.12	48.10
ALL OTHER MACHINE OPERATORS	830	0.36	20.53
MACHINE BUILDERS AND OTHER PRECISION MACHINE	250	0.11	34.12
ELECTROMECHANICAL EQUIPMENT ASSEMBLERS - PRECISION	6090	2.61	16.40
ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLER	10220	4.39	22.92
WATCH, CLOCK AND CHRONOMETER ASSEMBLERS, ADJUSTERS	130	0.06	18.96
ALL OTHER PRECISION METAL ASSEMBLERS	660	0.28	34.40
MACHINE ASSEMBLERS	840	0.36	50.39
ELECTRICAL AND ELECTRONIC ASSEMBLERS	8630	3.70	33.58
COIL WINDERS, TAPERS AND FINISHERS	690	0.30	101.29
WELDERS AND CUTTERS	440	0.19	31.03
SOLDERERS AND BRAZERS	740	0.32	75.91

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HIGH TECHNOLOGY MANUFACTURING INDUSTRIES
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OCCUPATIONAL TITLE	EMPLOYMENT		
	1 NUMBER	PERCENT OF TOTAL	RELATIVE ERROR %
PAINTING, COATING AND DECORATING WORKERS - HAND	40	0.02	67.85
HAND ENGRAVING AND PRINTING WORKERS	60	0.03	33.13
GRINDING AND POLISHING WORKERS, HAND	230	0.10	32.69
ASSEMBLERS AND FABRICATORS - EXCEPT MACHINE, ELECTRICAL	9510	4.08	25.79
ALL OTHER HAND WORKERS	610	0.26	55.37
PLANT AND SYSTEMS OCCUPATIONS	40	0.02	42.92
CHEMICAL PLANT AND SYSTEM OPERATORS	10	0.00	71.74
TRUCK DRIVERS, HEAVY	110	0.05	49.90
TRUCK DRIVERS, LIGHT-INCLUDING DELIVERY AND ROUTE DRIVERS	270	0.12	44.75
ALL OTHER TRANSPORTATION WORKERS	20	0.01	8.69
CRANE AND TOWER OPERATORS	20	0.01	0.00
INDUSTRIAL TRUCK AND TRACTOR OPERATORS	460	0.20	15.21
CONVEYOR OPERATORS AND TENDERS	20	0.01	84.38
ALL OTHER TRANSPORTATION AND MATERIAL MOVING EQUIPMENT	80	0.03	57.46
MECHANIC AND REPAIRER HELPERS	180	0.08	49.95
MACHINE FEEDERS AND OFFBEARERS	570	0.24	47.07
FREIGHT, STOCK AND MATERIAL HANDLERS, HAND	1660	0.71	22.37
HAND PACKERS AND PACKAGERS	1650	0.71	43.71
VEHICLE WASHERS AND EQUIPMENT CLEANERS	*	N/A	N/A
ALL OTHER HELPERS, LABORERS, MOVERS - HAND	1660	0.71	47.15

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THE MAJOR OCCUPATIONAL CATEGORIES USED IN THE OCCUPATIONAL EMPLOYMENT STATISTICS SURVEY

MANAGERIAL AND ADMINISTRATIVE OCCUPATIONS

Included in this category are top and middle level managers, administrators, and executives. Primary duties include policy making, planning, staffing, and directing or controlling the activities of industrial, commercial, governmental or other establishments. Excluded are first line supervisors and managers with first line duties. Also excluded are owners and partners of unincorporated firms. This category includes only managers and administrators who are exempt from the minimum wage and overtime provision of the Fair Labor Standards Act.

PROFESSIONAL, PARAPROFESSIONAL AND TECHNICAL OCCUPATIONS

Included in this category are occuaptions concerned with theoretical or practical aspects of such fields as science, art, education, law, and business relations where substantial post-secondary educational preparation, or equivalent on the job training is required. In this category, unlike others, first line supervisors and managers with first line duties are included with the workers they supervise.

SALES AND RELATED OCCUPATIONS

Included in this category are occupations involved with selling goods or services and other occupations that are directly related to sales.

CLERICAL AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Included in this category are occupations involved in performing office and plant clerical tasks such as typing, billing, filing, computer operating, record keeping, and mail preparation and distributing.

SERVICE OCCUPATIONS

Included in this category are occupations relating to protective service, food service, health assisting service, cleaning and building service and personal service.

AGRICULTURE, FORESTRY, FISHING, AND RELATED OCCUPATIONS

Included in this category are occupations concerned with agricultural production, forestry, and fishing. Also included are agriculture related occupations such as animal caretakers and groundskeepers.

PRODUCTION, CONSTRUCTION, OPERATING, MAINTENANCE AND MATERIAL HANDLING OCCUPATIONS

Included in this category are all skilled, semi-skilled, and unskilled occupations performing machine and manual tasks involving production, construction, operating, maintenance, repair, and material handing operations.

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BOOKBINDING CO., INC.

SEP 28 1993

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CHARLESTOWN, MASS